Place Value – Alternative Questions

1. **Write each of these numbers in words.**

   (a) 45   (b) 263   (c) 1495

   (d) 11264   (e) 55394   (f) 72198

2. **Write each of the following in expanded form and then show the numbers on a notation board.**

   (a) 10946 = 1 ten thousand + 9 hundred + 4 tens + 6 units = ___

   (b) 12709   (c) 21646   (d) 39421

   (e) 54468   (f) 74963   (g) 92484

3. **Write the value of the underlined digit in (i) words and (ii) numbers.**

   (a) 9<u>4</u>6   (b) 1<u>4</u>45   (c) <u>2</u>4168

   (d) <u>4</u>4542   (e) <u>63</u>498   (f) 8<u>99</u>42

4. **Round each of the following numbers to the nearest 10.**

   (a) 74   (b) 119   (c) 1455

   (d) 24058   (e) 40416   (f) 53141

5. **Round each of the following numbers to the nearest 100.**

   (a) 84   (b) 339   (c) 1605

   (d) 19425   (e) 37550   (f) 66094

6. **Round each of the following numbers to the nearest 1000.**

   (a) 1456   (b) 12249   (c) 20984

   (d) 34819   (e) 44028   (f) 61987

Name: _____   Date: _____

Place Value – Early Finishers

1. **Write the value of the underlined digits in (i) numbers and (ii) words.**

   (a) 174<u>6</u>8   (b) 2<u>3</u>941   (c) <u>3</u>4962

   (d) <u>47</u>091   (e) 5<u>41</u>69   (f) <u>661</u>90

2. **How many 10s in each of the following numbers?**

   (a) 94   (b) 128   (c) 6422

   (d) 16594   (e) 38462   (f) 55565

3. **How many 100s in each of the following numbers?**

   (a) 224   (b) 2040   (c) 10900

   (d) 34600   (e) 52656   (f) 94500

4. **How many 1000s in each of the following numbers?**

   (a) 11460   (b) 24899   (c) 30947

   (d) 45080   (e) 85511

5. **Continue each of these sequences.**

   (a) 780, 880, 980, ____   (f) 78,407, 78,307, 78,207, ____

   (b) 1800, 1900, 2000, ____   (g) 33,330, 33,660, 33,990, ____

   (c) 21,000, 20,000, 19,000, ____   (h) 54,910, 53,950, 53,990, ____

   (d) 19,500, 19,750, 19,950, ____   (i) 70,305, 70,205, 70,105, ____

   (e) 45,875, 45,880, 45,885, ____   (j) 99,999, 99,949, 99,899, ____

6. **Round each of the following numbers to the nearest**

		10	100	1000
(a)	1542			
(b)	8057			
(c)	13336			
(d)	19094			
(e)	32255			
(f)	48781			
(g)	54662			
(h)	73384			
(i)	89863			
(j)	93149			

Name: _____   Date: _____

1. **Complete the following operations.**

(a) 74568
   + 12110

(b) 34689
   + 35886

(c) 19866
   − 10423

(d) 30422
   − 17865

(e) 90000
   − 17789

(f) 66483
   +   96
   + 1585

(g) 28680
   + 14526
   +   184
   + 35681

2. **Complete the following operations.**

(a) $26 + 14839 + 587 =$

(b) $18 + 584 + 26852 =$

(c) $2 + 36 + 19853 =$

(d) $50268 - 2394 =$

(e) $63194 - 145 =$

(f) $79859 - 36 =$

3. **Complete the following operations.**

(a) $(26 + 14892 + 942) - 7861 =$

(b) $(11440 + 8 + 21186) - 14846 =$

(c) $(18 + 142 + 34886 + 2484) - 748 =$

(d) $(448 + 26 + 14859 + 333) - 8476 =$

4. **Estimate and then use your calculator to calculate the following.**

(a) $26839 + 44862 =$

(b) $18841 + 22761 + 39442 =$

(c) $88443 - 19141 =$

(d) $80149 - 58488 =$

5. (a) Find the sum of 18410 and 26884.

   (b) Find the difference between 50687 and 29223.

   (c) Find the sum of 11869 and 71482.

   (d) Find the difference between 70984 and 68492.

Name: _____   Date: _____

Operations – Early Finishers

1. **Calculate the following:**

   (a) $(18456 + 22289) - 14022 =$

   (b) $(260 + 49114) - 22869 =$

   (c) $(11418 + 1784 + 4) - 1199 =$

   (d) $(86 + 9 + 19998 + 24680) - 886 =$

   (e) $(29140 - 19886) - 1184 =$

2. **Estimate and then use your calculator to calculate the following:**

   (a) $86042 + 9984 =$

   (b) $38044 - 17896 =$

   (c) $(28494 + 29087) - 1004 =$

   (d) $(81117 - 52842) - 998 =$

3. (a) Find the sum of 884 and 28443.

   (b) Find the sum of 11867 and 28440.

   (c) From the sum of 70992 and 12212 take 14088.

   (d) To the difference between 44099 and 31814 add 26226.

   (e) Add the difference between 66111 and 55495, to the difference between 70914 and 28114.

4. (a) A newspaper sold 88,463 copies on Monday and 14,086 less copies on Tuesday. How many copies were sold on Tuesday?

   (b) 11,866 people attended a rugby match last Saturday. 14,486 attended a rugby match the previous Saturday. In total, how many people attended the matches?

   (c) A secretary earned €30,166 last year. Her salary is to be increased by €3,098 this year. How much can the secretary expect to earn this year?

   (d) A ticket seller sold 21,486 tickets in week 1, 10,862 in week 2 and 18,486 tickets in week 3. How many tickets in total did the seller sell?

   (e) Aero Waste Disposal Company collected 18,082 kg of waste in January and 22,462 kg of waste in February. Jackson Waste Disposal Ltd collected 19,984 kg of waste in January and 21,468 kg in February. Which company collected the most waste and by how much?

Name: _____   Date: _____

Data 1 – Alternative Questions

1. **Complete the tally sheet and then draw a bar chart to show the totals.**

	Favourite Films	Total
Starduster	�HⳠ ⲏⳠ ⲓⲓⲓ	
Cat Adventures	ⲏⳠ ⲓⲓ	
Robots Inc	ⲏⳠ ⲏⳠ ⲓⲓⲓ	
Bad Guys	ⲓⲓⲓ	
Game Wars	ⲏⳠ ⲏⳠ ⲏⳠ ⲓⲓ	

2. **Design a bar chart to show the information in the table. Include the following:**

   A title   A scale interval of 1: 2   Labels

   Most Popular Gaming Consoles in 5th Class.

X-Box	16
Play Station	14
Wii	22
Nintendo DS	30
Nintendo Game Cube	18
Nintendo DS Lite	20

3. **Favourite Holiday Destinations in Greypark National School**
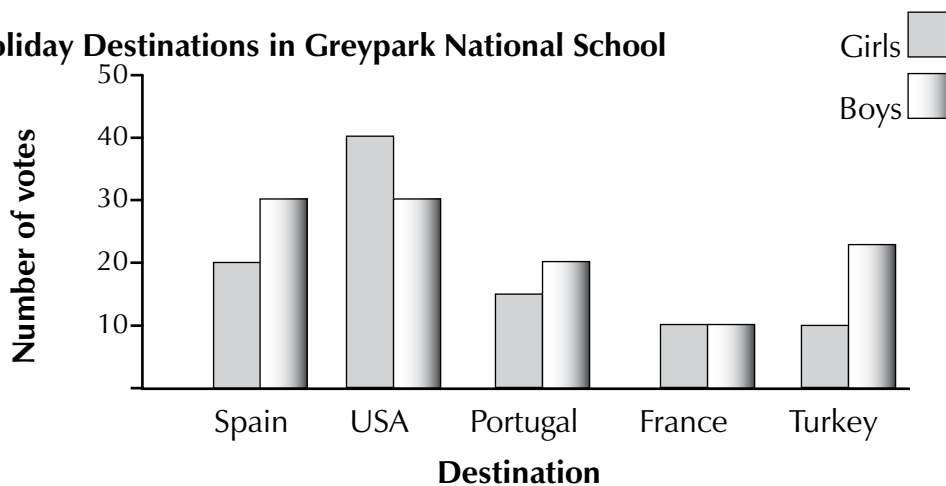
(a) Which was the favourite destination for boys?

(b) Which was the favourite destination for girls?

(c) If each child had one vote, how many children in total voted?

(d) Did the same number of girls and boys vote?

(e) The average number of votes a destination received was 40. Which destinations got more votes than the average?

Name: _____   Date: _____

1. **Complete the following tally sheet, display the results in a table and then draw a horizontal bar chart to show the totals.**

	Favourite Films	Total
Starduster	|||| |||| ||||	
Cat Adventures	|||| |||| |||| |||	
Robots Inc	|||| |||	
Bad Guys	|||| |||| |||| |||	
Game Wars	|||| |||| |||| ||||	

2. **This table shows the number of pupils missing from 5th and 6th class in the months from January to June. Design a multiple bar chart to show the information in the table.**

Monthly Absence Record

	JAN	FEB	MAR	APR	MAY	JUN
5th class	15	15	15	15	20	18
6th class	14	10	11	13	18	15

3. **Convert the tally sheet into a results table and a multiple bar chart showing the favourite holiday destinations of boys and girls in Greypark National School.**

Destination	Girls	Boys
Spain	|||| ||||	|||| |||
USA	|||| |||| ||||	|||| |||| ||||
Portugal	||	||||
France	|||| |||	|||| |||| ||
Turkey	||||	|||

What was the average number of votes received for a destination?

4. **Prepare a tally sheet with the name of 5 chocolate bars. Get 10 children to pick their favourite three bars. Complete a results table and a vertical bar line graph. Use a scale of 1 : 3.**

Name: _____   Date: _____

4 Multiplication 1 – Alternative Questions

1. **Multiple each of these numbers by 10.**

   (a) 7   (b) 23   (c) 115

   (d) 260   (e) 1020   (f) 8855

2. **Multiply each of these using the long multiplication method.**

   (a) 440 × 23   (b) 623 × 14   (c) 888 × 32

   (d) 1168 × 17   (e) 2241 × 35   (f) 3096 × 47

3. **Round each of these amounts to the nearest €.**

   (a) €0·99   (b) €4·09   (c) €13·45

   (d) €116·23   (e) €226·49   (f) €399·51

4. **Estimate and then multiple each of the following. Watch the decimal point!**

   (a) 1·26
   × 8

   (b) 2·82
   × 17

   (c) 14·68
   × 22

   (d) 52·29
   × 38

   (e) 101·89
   × 91

   (f) 224·28
   × 63

5. **Estimate and then use the long multiplication method to answer these.**

   (a) 338 × 57   (b) 2261 × 85   (c) 1·09 × 37

   (d) 12·87 × 44   (e) 764·3 × 26   (f) 709·89 × 52

   (g) 991·22 × 63   (h) 998·94 × 51

6. (a) A dress cost €149·50. How much should three of these dress cost?

   (b) An athlete can run 2·75km in 15 minutes. How far can they run in one hour?

   (c) A goldfish cost €1·99. A lady bought 40 goldfish. How much change did she from €100?

Name: _____   Date: _____

(4) Multiplication 1 – Early Finishers

1. **Make each of these numbers 100 times bigger.**

   (a) 8   (b) 24   (c) 93   (d) 156

   (e) 886   (f) 2244   (g) 8603

2. **Multiply each of the following numbers by 37.**

   (a) 5   (b) 5·28   (c) 17   (d) 27·4

   (e) 88·73   (f) 151   (g) 262·83

3. **Solve each of the following.**

   (a) A kitchen table is 1.63 metres long. How long would 10 kitchen tables be, laid end-to-end?

   (b) A building is 17 storeys high. the height of one storey is 31·46 metres. What is the height of the building?

   (c) The patch between two houses is 11·33 metres long. If Sandra used the patch 12 times in one day, how far did she travel?

   (d) A bag of marbles weighs 1·91kg. A second bag of marbles weighs 15 times more. What is the weight of the second bag?

   (e) A handbag in Price Rite is €7·99. In Brown Toffs it is fifty times more expensive. How much would you expect to pay for a handbag in Brown Toffs?

   (f) Máire travels 52·60km to work. If she drives to and from work how far does she travel in one day? How far does she travel in a month she works 23 days?

   (g) There are two pieces of jewellery in a jeweller's window. One piece is 100 times more expensive than the other. If the cheaper piece costs €230·99, how much is the more expensive piece? Write the amount in numbers <u>and</u> words.

   (h) The depth of a paddling pool is $15\frac{1}{2}$cm. How deep is a swimming pool if it is 25 times deeper than the paddling pool?

   (i) Cian can walk 5.65km in 1 hour. How far can he walk in $3\frac{1}{2}$ hours?

   (j) Just Furniture Store has 34 sofas in stock, each with an average value of €999.99. What is the total value of this stock?

   (k) A container can hold 1·68 litres of water. How many containers would be needed to hold 20 litres of water.

   (l) A piece of music is $1\frac{1}{2}$ minutes long. If you listened to it 17 times how long would that be?

Name: _____   Date: _____
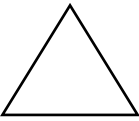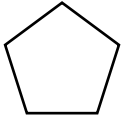
1. **Name each of the following shapes.**

(a) _____

(b) _____

(c) _____

(d) _____

(e) _____

(f) _____

(g) _____

(h) _____

(a)

(b)

(c)

(d)

(e)

(f)

(g)

(h)
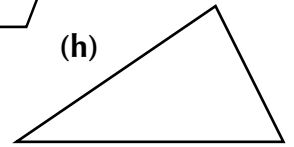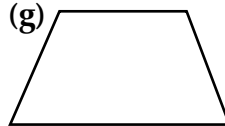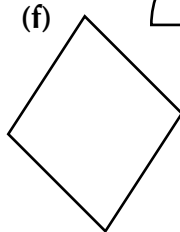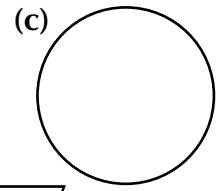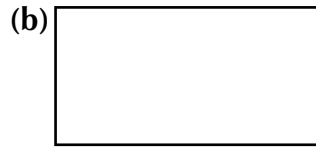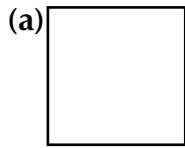
2. **Fill in the information on the table**

	No. of sides	No. of angles	No. of parallel lines	Lines of symmetry

3. **Say whether each of the following triangles are equilateral, isosceles, scalene or right angled.**
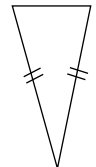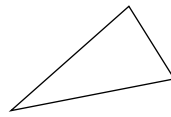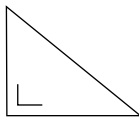
(a)_____

(b)_____

(c)_____
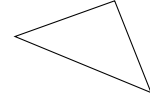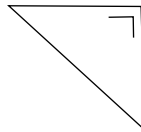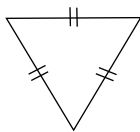
(d)_____

(e)_____

(f)_____

4. **Write a sentence to show your understanding of the following words.**

You may use your maths book to help you.

(a) Quadrilateral

(b) Isosceles triangle

(c) Tessellation

(d) Tangram

Name: _____ Date: _____

2D Shapes – Early Finishers

1. **List ten 2D shapes.**

   _____   _____

   _____   _____

   _____   _____

   _____   _____

   _____   _____

2. **Using the 10 shapes listed above, describe their properties under the following headings:**

   (a) Number of angles

   (b) Types of angles (acute/obtuse/right)

   (c) Diagonal lines

   (d) Pairs of parallel lines

   (e) Quadrilateral: Yes/No

3. **Say whether each of these triangles is equilateral, isosceles, scalene or right-angled.**

   (a) Sides of 4cm, $3\frac{1}{2}$cm and 6cm.

   (b) Angles of 25°, 25° and 130°.

   (c) All sides and angles congruent.

   (d) Angles of 80°, 90° and 10°.

   (e) A triangle with one angle of 49°.

   (f) A triangle with no sides or angles congruent.

4. **Tangram puzzles.**

   (a)

   (b)
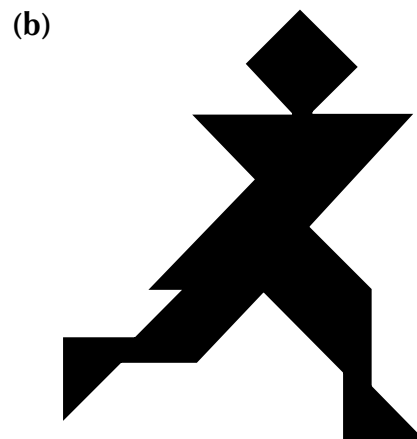
Name: _____   Date: _____

1. **Divide each of the following numbers by 10.**

    (a) 20   **(b)** 50   **(c)** 100

    (d) 130   **(e)** 250   **(f)** 1000

    (g) 2500

2. **Calculate the following.**

    (a) $\dfrac{60}{7}$ **(b)** 58 ÷ 8   **(c)** 84 ÷ 9

    (d) $\dfrac{131}{6}$ **(e)** $\dfrac{244}{4}$ **(f)** $\dfrac{301}{6}$

3. **Use the subtraction method to do these.**

    (a) 182 ÷ 12   **(b)** 202 ÷ 24   **(c)** 198 ÷ 44

    (d) 289 ÷ 31   **(e)** 331 ÷ 82   **(f)** 399 ÷ 96

4. **Use the multiples method to do these.**

    (a) 188 ÷ 17   **(b)** 214 ÷ 22   **(c)** 336 ÷ 25

    (d) 419 ÷ 37   **(e)** 446 ÷ 42   **(f)** 511 ÷ 19

5. **Use the long division method to do these.**

    (a) 208 ÷ 13   **(b)** 418 ÷ 19   **(c)** 624 ÷ 24

    (d) 522 ÷ 29   **(e)** 693 ÷ 33   **(f)** 468 ÷ 52

6. **Use the long division method to do these.**

    (a) 114 ÷ 29   **(b)** 209 ÷ 22   **(c)** 356 ÷ 26

    (d) 444 ÷ 38   **(e)** 609 ÷ 40   **(f)** 771 ÷ 58

7. **(a)** How many times is 23 contained in 828?

    (b) A babysitter earned €500 for 20 hours work. How much did the babysitter earn per hour?

    (c) How many times greater is 936 than 36?

    (d) Make the number 820 ten time smaller.

Name: _____   Date: _____

1. **Make each of the following numbers 20 times smaller.**

(a) 40   (b) 160   (c) 280

(d) 500   (e) 1100   (f) 10000

(g) 20000   (h) 60000

2. **Calculate the following.**

(a) 111 ÷ 5   (b) $\frac{203}{8}$ (c) $\frac{774}{9}$

(d) 194 ÷ 3   (e) $\frac{402}{8}$ (f) 314 ÷ 4

3. **Use the long division method to calculate these.**

(a) 495 ÷ 33   (b) 588 ÷ 42   (c) 897 ÷ 33

(d) 316 ÷ 45   (e) 512 ÷ 34   (f) 822 ÷ 71

4. (a) 24 x ☐ = 552   (b) 19 x ☐ = 475

(c) 31 x ☐ = 558   (d) 13 x ☐ = 702

(e) 77 x ☐ = 847   (f) 84 x ☐ = 756

5. **Use either multiplication or division to solve the following word problems.**

(a) How many times does 23 go into 621?

(b) What number is 36 times greater than 19?

(c) Eoin earned €861 for seven days work. How much did he earn each day?

(d) How many lengths of cloth of 36cm each can be cut from 612cm of material?

(e) There are 22 boxes of washing powder on a supermarket shelf. If each box weighs 805g, what is the total weight of the stock? Can you give your answer in kilogrammes?

(f) A bicycle tour is 266km long. Jane travelled the same distance each day and it took her 14 days to complete the tour. How far did she cycle each day?

Name: _____   Date: _____

Fractions 1 – Alternative Questions

1. **Put in the correct sign: < = >**

   (a) $\frac{1}{2}$ ___ $\frac{1}{3}$
   (b) $\frac{2}{3}$ ___ $\frac{7}{12}$
   (c) $\frac{1}{3}$ ___ $\frac{3}{12}$

   (d) $\frac{1}{5}$ ___ $\frac{3}{10}$
   (e) $\frac{5}{6}$ ___ $\frac{8}{9}$
   (f) $\frac{9}{10}$ ___ $\frac{4}{5}$

2. **Fill in the missing numbers on each of these equivalent fractions.**

   (a) $\frac{1}{4} = \frac{\square}{8} = \frac{\square}{21}$
   (b) $\frac{1}{3} = \frac{\square}{6} = \frac{\square}{9}$
   (c) $\frac{1}{\square} = \frac{4}{8} = \frac{5}{10}$

   (d) $\frac{3}{\square} = \frac{6}{8} = \frac{\square}{12}$
   (e) $\frac{5}{6} = \frac{\square}{12}$
   (f) $\frac{\square}{5} = \frac{8}{10}$

   (g) $\frac{\square}{3} = \frac{4}{6} = \frac{\square}{12}$

3. **Convert each improper fraction to a mixed number.**

   (a) $\frac{11}{2}$
   (b) $\frac{12}{7}$
   (c) $\frac{22}{10}$

   (d) $\frac{17}{6}$
   (e) $\frac{50}{3}$
   (f) $\frac{41}{6}$

   (g) $\frac{81}{8}$

4. **Convert each mixed number to an improper fraction.**

   (a) $2\frac{1}{3}$
   (b) $1\frac{4}{5}$
   (c) $2\frac{7}{10}$

   (d) $3\frac{1}{2}$
   (e) $4\frac{5}{8}$
   (f) $5\frac{4}{5}$

   (g) $5\frac{8}{9}$

5. **Fill in the fractions missing on the number line.**
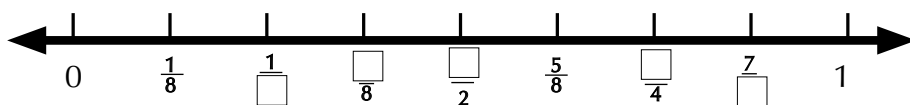
6. **Fill in the fractions, improper fractions and mixed numbers missing on the number line.**

Name: _____   Date: _____

Fractions 1 – Early Finishers
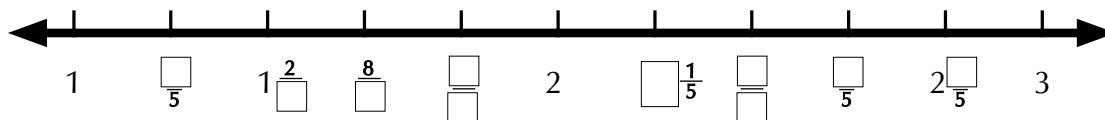
1. **Write at least three fractions that are equivalent to:**

    (a) $\frac{1}{2}$ (b) $\frac{1}{4}$ (c) $\frac{3}{4}$

    (d) $\frac{1}{5}$ (e) $\frac{4}{12}$ (f) $\frac{6}{8}$

2. **Put in the correct sign: < = >**

    (a) $1\frac{1}{2}$ ____ $\frac{3}{2}$ (b) $\frac{5}{4}$ ____ $1\frac{1}{2}$ (c) $2\frac{2}{3}$ ____ $\frac{7}{3}$

    (d) $\frac{17}{10}$ ____ $1\frac{1}{2}$ (e) $2\frac{1}{12}$ ____ $\frac{27}{12}$ (f) $3\frac{5}{6}$ ____ $\frac{23}{6}$

3. **Put each of these amounts into the correct place on this number line:**

    $1\frac{1}{2}$, $\frac{15}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{7}{4}$, $\frac{1}{4}$, $1\frac{1}{8}$, $\frac{11}{8}$
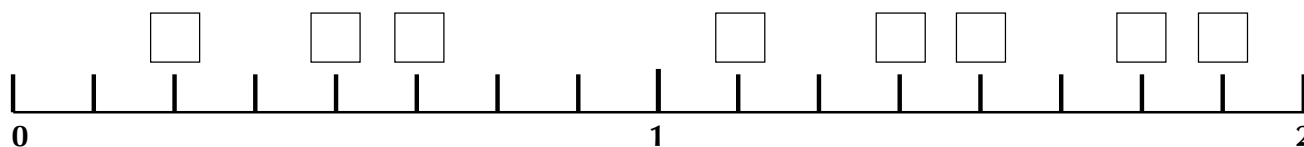
4. **Put each of these amounts into the correct place on this number line:**

    $\frac{17}{9}$, $\frac{13}{9}$, $\frac{1}{3}$, $\frac{10}{9}$, $\frac{4}{6}$, $\frac{5}{9}$, $1\frac{1}{3}$, $1\frac{2}{3}$,
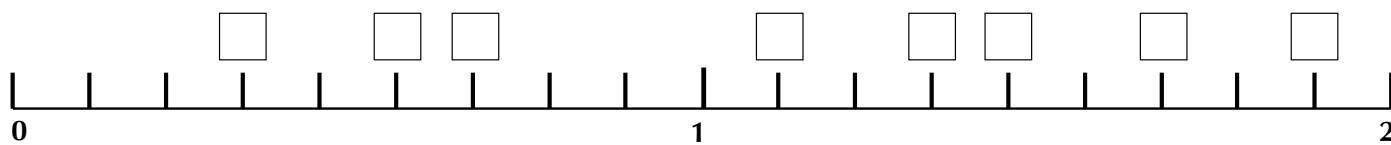
5. **Put each of these amounts into the correct place on this number line.**

    $1\frac{2}{5}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{1}{2}$, $\frac{11}{10}$, $\frac{13}{10}$, $\frac{3}{5}$, $\frac{19}{10}$, $\frac{7}{10}$

Name: _____   Date: _____

Fractions 2 – Alternative Questions

1. **Simplify the following fractions.**

   (a) $\frac{2}{4}$ (b) $\frac{8}{10}$ (c) $\frac{15}{20}$

   (d) $\frac{16}{18}$ (e) $\frac{10}{12}$ (f) $\frac{24}{36}$

2. **Simplify the following mixed numbers.**

   (a) $1\frac{3}{9}$ (b) $1\frac{8}{12}$ (c) $2\frac{10}{20}$

   (d) $1\frac{50}{60}$ (e) $3\frac{4}{16}$ (f) $5\frac{5}{25}$

   (g) $3\frac{12}{36}$ (h) $5\frac{90}{100}$ (i) $3\frac{33}{99}$

3. **Calculate the following. Simplify your answers.**

   (a) $\frac{1}{8} + \frac{5}{8} =$ (b) $\frac{3}{10} + \frac{3}{10} =$ (c) $\frac{7}{8} - \frac{2}{8} =$

   (d) $\frac{3}{4} + \frac{3}{4} =$ (e) $\frac{3}{5} + \frac{4}{5} =$ (f) $\frac{11}{12} - \frac{2}{12} =$

4. **Calculate the following. Where possible simplify your answers.**

   (a) $1\frac{1}{4} + 1\frac{3}{4} =$ (b) $3\frac{7}{12} - 1\frac{4}{12} =$ (c) $2\frac{5}{8} + 1\frac{7}{8} =$

   (d) $2\frac{1}{2} + 1\frac{3}{4} =$ (e) $3\frac{2}{3} - 1\frac{1}{6} =$ (f) $2\frac{7}{9} - 2\frac{1}{3} =$

5. **Calculate the following. Where possible simplify your answers.**

   (a) $1\frac{4}{5} + 2\frac{7}{10} =$ (b) $3\frac{1}{2} - 1\frac{3}{4} =$ (c) $2\frac{9}{10} + 1\frac{1}{5} =$

   (d) $3\frac{1}{3} - \frac{7}{9} =$ (e) $5 - 1\frac{2}{3} =$ (f) $1\frac{1}{12} - \frac{5}{6} =$

6. **Calculate the following.**

   (a) $\frac{1}{2} \times 6 =$ (b) $\frac{1}{3} \times 5 =$ (c) $\frac{3}{4} \times 9 =$

   (d) $\frac{5}{12} \times 8 =$ (e) $\frac{3}{5} \times 7 =$ (f) $\frac{11}{12} \times 10 =$

Name: _____   Date: _____

1. **Calculate the following. Where possible simplify your answer.**

   (a) $\frac{9}{10} + \frac{4}{5} =$

   (b) $\frac{3}{4} + \frac{1}{2} =$

   (c) $\frac{7}{12} - \frac{1}{4} =$

   (d) $\frac{7}{8} - \frac{3}{4} =$

   (e) $\frac{6}{7} + \frac{5}{7} =$

   (f) $\frac{2}{3} + \frac{7}{9} =$

2. **Calculate the following. Where possible simplify your answer.**

   (a) $1\frac{11}{12} + 2\frac{1}{6} =$

   (b) $1\frac{7}{10} + 2\frac{4}{5} =$

   (c) $2\frac{1}{4} - 1\frac{7}{8} =$

   (d) $3\frac{2}{3} - 2\frac{7}{9} =$

   (e) $1\frac{19}{20} + 2\frac{1}{5} =$

   (f) $3\frac{1}{4} - 2\frac{7}{20} =$

3. **Calculate the following. Where possible simplify your answer.**

   (a) $\frac{7}{8}$ x 6 =

   (b) $\frac{9}{10}$ x 9 =

   (c) $\frac{3}{4}$ x 12 =

   (d) $\frac{11}{20}$ x 4 =

   (e) $\frac{7}{50}$ x 6 =

   (f) $\frac{12}{100}$ x 10 =

4. **Solve the following word problems.**

   (a) Jack drank $\frac{1}{4}$ litre of orange juice. Julie drank three times that amount. How much orange juice did Julie drink?

   (b) Grace ate $\frac{1}{6}$ of a pizza at lunch and another $\frac{5}{12}$ of the pizza for tea. What fraction of the pizza in total did Grace eat?

   (c) At a birthday party the girls ate $\frac{7}{12}$ of the birthday cake and the boys ate $\frac{1}{4}$ of the same cake. What fraction of the cake was left?

   (d) There were two cartons of eggs in a fridge. In the first box $\frac{5}{6}$ of the eggs were broken and in the second $\frac{1}{3}$ of the eggs were broken. In total, what fraction of the eggs were **(i)** broken, **(ii)** unbroken?

   (e) What mixed number is twelve times bigger than $\frac{9}{10}$?

   (f) A hole was $\frac{1}{10}$ of a metre deep at breakfast time. By lunch it was five times deeper. How deep was the hole by lunch time?

   (g) A jug of water was $\frac{1}{5}$ full. Tim came along and drank half of what was left. What fraction of water was then left in the jug?

Name: _____   Date: _____

Lines and Angles – Alternative Questions

1. **For each angle say whether it is acute, obtuse, right, straight or reflex.**

   (a) 100°   (e) 45°   (i) 3°

   (b) 85°   (f) 180°   (j) 300°

   (c) 200°   (g) 270°

   (d) 250°   (h) 90°

2. **For each angle say whether it is acute, obtuse, right, straight or reflex.**

   (a)   (b)   (c)

   (d)   (e)   (f)

   (g)   (h)
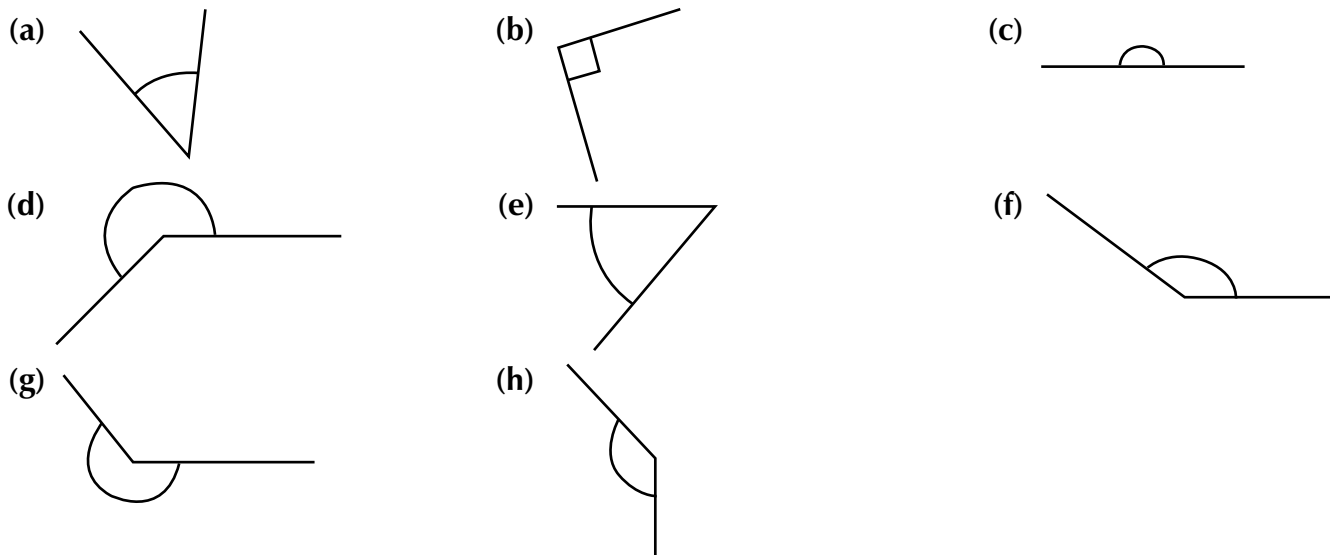
3. **Estimate and then measure each of the following angles.**

   (a)   (b)   (c)

   (d)   (e)   (f)
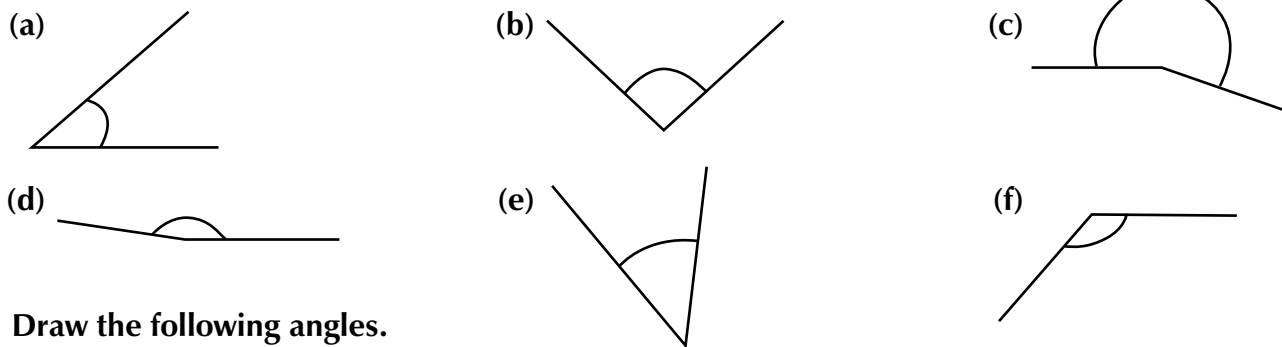
4. **Draw the following angles.**

   (a) 30°   (c) 55°   (e) 90°

   (b) 110°   (d) 135°   (f) 170°

5. **Find the value of the missing angles without using a protractor.**

   (a)   (b)   (c)   (d)

   (a) 60° ... 60° ... a

   (b) 45° ... b

   (c) 25° ... c ... 105°

   (d) d ... 40°

Name: _____   Date: _____

Lines and Angles – Early Finishers
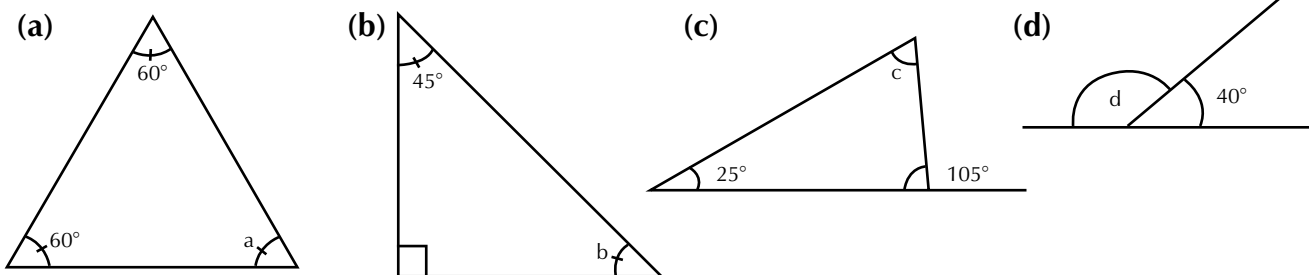
1. **Find the value of the missing angles without using a protractor.**

(a)

(b)

(c)

(d)

(e)

(f)
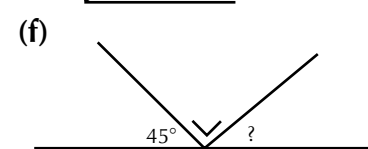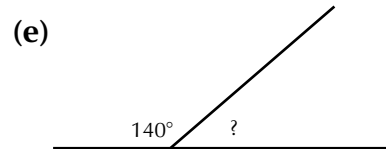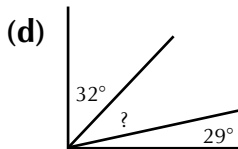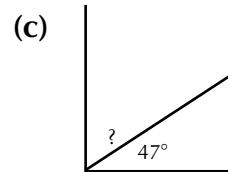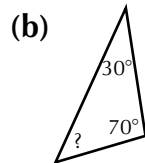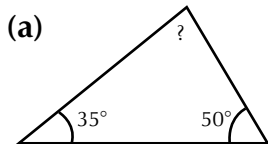
2. **Draw these angles using a protractor.**

(a) 25°   (b) 105°   (c) 180°

(d) 210°   (e) 290°   (f) 350°

3. **Write a sentence to show your understanding of the following terms:**

(a) right angle
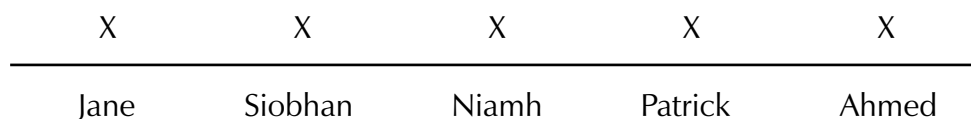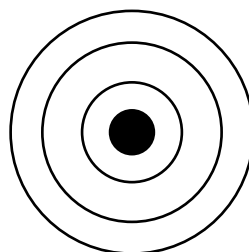
(b) full rotation

(c) obtuse

(d) acute

(e) reflex

4.

	X	X	X	X	X
	Jane	Siobhan	Niamh	Patrick	Ahmed

(a) At what angle is each person to the bullseye?

(b) Who has the best chance of hitting the bullseye? Why?

(c) Who has the least chance of hitting the bullseye? Why?

Name: _____   Date: _____

1. **Write each of these decimals in expanded form.**

   (a) 0·6

   (b) 0·761

   (c) 0·059

   (d) 0·008

   (e) 0·302

   (f) 1·468

   (g) 2·003

   (h) 5·108

   (i) 2·269

2. **Write each decimals as a fraction.**

   (a) 0·002

   (b) 0·057

   (c) 0·134

   (d) 0·996

   (e) 0·783

   (f) 0·814

   (g) 0·116

   (h) 3·260

   (i) 4·003

3. **Write each of the following as a decimal number.**

   (a) $\frac{1}{2}$

   (b) $\frac{7}{10}$

   (c) $\frac{3}{100}$

   (d) $\frac{27}{100}$

   (e) $\frac{36}{1000}$

   (f) $\frac{245}{1000}$

   (g) $\frac{333}{1000}$

   (h) $\frac{900}{1000}$

   (i) $\frac{1}{2}$

4. **Calculate the following.**

   (a) $0·863 + 0·45 =$

   (b) $0·06 + 0·23 + 0·886 =$

   (c) $2·684 - 0·112 =$

   (d) $3·069 - 0·56 =$

   (e) $5 + 0·1 + 0·033 =$

   (f) $6 - 0·442 =$

   (g) $10 + 0·001 + 0·56 + 0·03 =$

   (h) $3 - 0·009 =$

5. (a) What is the sum of 3, 0.7 and 0·003?

   (b) What is the difference between 5 and 0·015?

   (c) From the sum of 9 and 1.368 take 0·5.

   (d) To the sum of 5·26 and 0·009 add the difference between 3·06 and 1·049.

Name: _____   Date: _____

1. **Write each of the following as a decimal number.**

   (a) $\frac{1}{4}$ (b) $\frac{1}{5}$ (c) $\frac{199}{1000}$

   (d) $\frac{27}{1000}$ (e) $\frac{3}{1000}$ (f) $\frac{3}{5}$

   (g) $\frac{7}{20}$ (h) $\frac{9}{20}$

2. **Calculate the following.**

   (a) $6 + 0{\cdot}45 + 0{\cdot}092 =$

   (b) $5 - 0{\cdot}126 =$

   (c) $3{\cdot}14 + 0{\cdot}117 + 0{\cdot}021 =$

   (d) $17 - 2.068 =$

   (e) $0{\cdot}114 + 2 + 1{\cdot}689 + 0{\cdot}003 =$

   (f) $16.002 - 0.416 =$

   (g) $0{\cdot}009 + 12 + 1{\cdot}472 + 0{\cdot}014 =$

3. **Calculate the following.**

   (a) A shoe box with a pair of shoes inside weighs 2·095 kg. The shoes weigh 1·992 kg. How heavy is the box?

   (b) A table lamp weighs 5·602kg. How much would three such lamps weigh?

   (c) A mini-marathon is 10km long. Alannah has travelled 7·855km. How far has she yet to go?

   (d) Gerry weighs 42·068kg. Carla weighs 41.277kg. What is their total weight?

   (e) Sive's school bag is 6·112kg in weight. Jane's bag is 0·3kg lighter. What is the weight of Jane's bag?

   (f) Mike cycles 0·955km to work every day. Enda cycles 0·2km further than Mike. What is the length of Enda's cycle to work?

   (g) A jug holds $1\frac{1}{4}$ litres of water. A cup holds 0.8 litres less than the jug. How much water can the cup hold?

   (h) What is the difference in weight between a 1kg bag of sugar and $\frac{5}{1000}$kg spoon of sugar?

Name: _____   Date: _____

1. **(a)** How many bags of potatoes, each weighing 5kg, can be taken from a trailer with 250kg of potatoes?

   (b) This is $\frac{1}{4}$ of the pens in the teacher's drawer.
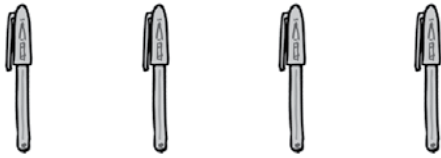
   How many pens in total are in the drawer?

   (c) What fraction of a chocolate bar is left if Shane eats $\frac{1}{3}$ and Ciara eats $\frac{1}{6}$ of the bar?

   (d) 5th class in Scoil Dara did a sponsored walk. They raised €4,687·22. How much more than their target of €3,000 did they raise?

   (e) It takes a carpenter $\frac{1}{4}$ of an hour to varnish a plank of wood. How long will it take him to varnish 16 planks?

2. **Break the Code!**

   If A = 0·25, B = 0·75 and C = 1·25

   Find   H =

   M =

   Y =

3. **Puzzle**

   A snail creeps 12cm up a wall during the day time. It stops to rest at night. When it wakes up in the morning it has slipped down 2cm. How many days will it take the snail to reach the top of the wall if the wall is 2 metres high.

Name: _____   Date: _____

1. **(a)** What must be added to 0·046 to make 1·5?

   (b) Karen earned €373·83 after working for three days. How much would she have earned if she had worked for another two days at the same rate?

   (c) A baby drinks 300ml of formula every time he has a bottle. How many bottles would he need to have to drink $4\frac{1}{2}$ litres of formula?

   (d) A swimming pool is $2\frac{1}{2}$ metres deep in the deep end. If it is half that deep in the shallow end, what is the depth in metres of the shallow part of the pool?

   (e) Christina can walk $5\frac{1}{4}$ kilometres in one hour. How long will it take her to walk 21km?
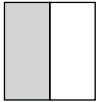
2. **Break the Code?**
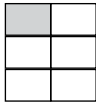
   If A = 0.25, B = 0.75 and C = 1.25

   What is F = ☐ , N = ☐ , T = ☐ and Z = ☐

3. **Puzzle**

   (a) In a field there were 10 cattle and some farmers. If there were 72 legs in total in the field, how many farmers were there?

   (b) = $\frac{1}{2}$

    = $\frac{1}{3}$ of $\frac{1}{2}$

   Can you draw?
   (i) $\frac{1}{3}$ of $\frac{1}{3}$
   (ii) $\frac{1}{3}$ of $\frac{1}{4}$
   (iii) $\frac{1}{3}$ of $\frac{1}{5}$

Name: _____   Date: _____

Number Theory – Alternative Questions

1. List six multiples for each of the following numbers.

(a) 2   (b) 3   (c) 5

(d) 8   (e) 10   (f) 12

2. List three pairs of factors for each of these numbers.

(a) 18   (b) 28   (c) 32

(d) 40   (e) 56   (f) 60

3. Put a circle around all the prime numbers in this list.

1	6	11	16	21
2	7	12	17	22
3	8	13	18	23
4	9	14	19	24
5	10	15	20	25

4. Put an X on all the composite numbers in this list.

26	31	36	41	46
27	32	37	42	47
28	33	38	43	48
29	34	39	44	59
30	35	40	45	50

5. How many square numbers are there between 1 and 100? Use this 100 square to help you.
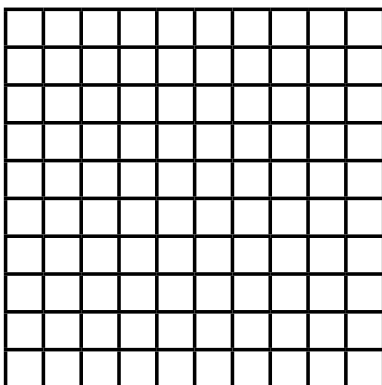
There are ___ square numbers between 1 and 100.

Name: _____ Date: _____

1. **Write a sentence to show your understanding of the following terms.**

   (a) factor

   (b) multiple

   (c) product

2. **Write out all the prime numbers between 1 and 50.**

3. **Write out all the composite numbers between 51 and 100.**

4. (a) The first square number is ___ .

   (b) ___ is the third square number.

   (c) The fifth square number is ___ .

   (d) The seventh square number is ___ .

   (e) 100 is the ___ square number.

5. (a) Mary wears her jacket every 4 days and her hat every 5 days. If she wears her jacket and hat on March 8th, what is the next date she will wear both her jacket and hat?

   (b) Greg goes swimming every 3 days. Sive goes swimming every 4 days. If they both go swimming on 10th October, what is the next date on which they will both go swimming?

   (c) Three bells toll together and then toll again at intervals of 4, 5 and 6 seconds. After how much time will they toll together again?

   (d) If oranges in a supermarket were arranged in groups of 3, 4, 6 or 9 and none were left out what is the least number of oranges there could have been?

   (e) Gordon and Tom go jogging at 7am. Gordon stops for a rest every 10 minutes and Tom stops for a rest every 12 minutes. What time will it be when they stop for a rest at the same time?

Name: _____   Date: _____

1. **Make each of these numbers 10 times bigger.**

   (a) 12   (b) 1·7   (c) 23

   (d) 2·33   (e) 4·06   (f) 0·79

   (g) 0·088   (h) 0·005   (i) 1·268

2. **Make each of these numbers 100 times bigger.**

   (a) 6   (b) 13   (c) 39   (d) 0·8   (e) 4.23

   (f) 12.689   (g) 2.094   (h) 0.001   (i) 23.165

3. **Round each of these decimals to the nearest whole number.**

   (a) 0·774   (b) 1·098   (c) 1·601

   (d) 2·5   (e) 15·288   (f) 20·55

   (g) 80·864   (h) 82·081   (i) 106·059

4. **Estimate and then multiply**

   (a) 7·149   (b) 8·762   (c) 12·442   (d) 16·788
        × 8   × 6   × 7   × 5

5. **Estimate and then multiply**

   (a) 0·885 × 14   (b) 1·669 × 12   (c) 2·043 × 12

   (d) 5·065 × 10   (e) 8·889 × 12   (f) 10·053 × 15

Name: _____   Date: _____

1. **Round each of the following to the nearest whole number.**

   (a) 2·042

   (b) 0·552

   (c) 3·06

   (d) 5·6

   (e) 3·091

   (f) 12·532

2. **Make each of the following number 1,000 times bigger.**

   (a) 2

   (b) 15

   (c) 35

   (d) 1·6

   (e) 0·03

   (f) 1·06

   (g) 2·009

   (h) 1·462

3. **Decide whether you need to +, −, × or ÷ to calculate the following and then solve.**

   (a) A racetrack is 0·9km in length. How far would an athlete travel if they did 36 laps of the track? Round your answer to the nearest kilometre.

   (b) How much short of 50 is 48·063?

   (c) Find the sum of the following numbers: 6, 1·36, 0·306 and 0·63.

   (d) What is the difference between €123·31 and 87c?

   (e) Increase 0·468 by 25.

   (f) Make 0·012 sixty-three times larger.

   (g) A silo can hold 53·6 kg of grain. How many bags of 4kg each can be filled from the silo?

   (h) If an orange weighs 0·256 kg, what is the weight of a bag of 6 oranges of the same weight? Round your answer to the nearest kilogramme.

   (i) How many minutes in 1·75 hours?

   (j) Gillian spends $1\frac{1}{4}$ hours per night at her homework. How long does she spend at her homework over 20 nights?

Name: _____   Date: _____

1. **Draw lines of the following length.**

   (a) 60mm   (b) 8·5cm   (c) 110mm   (d) $4\frac{1}{2}$cm

2. **Measure the length of the following lines.**

   (a) ___ mm   _____

   (b) ___ cm   _____

3. **Rename each of these lengths as centimetres.**

   (a) 5m

   (b) $2\frac{1}{2}$m

   (c) 12m

   (d) 5·7m

   (e) 0·8m

   (f) 0·06m

   (g) 3·25m

   (h) $\frac{11}{10}$m

4. **Rename each of these lengths as metres.**

   (a) 6km

   (b) 2·1km

   (c) $3\frac{1}{2}$km

   (d) $\frac{9}{10}$km

   (e) 0·4km

   (f) 0·06km

   (g) 0·003km

   (h) $\frac{3}{4}$km

5. **Solve the following.**

   (a) Find the perimeter of a square with a side of 9cm.

   (b) A rectangle is 11cm long and 4cm wide, what is the perimeter?

   (c) A square has a perimeter of 32cm. What is the length of one side?

   (d) The perimeter of a rectangle is 48cm. If the length of one side is 8cm, what is the length of the other side?

Name: _____   Date: _____

1. How many centimetres in 0.75 metres?

2. Rename $\frac{4}{5}$ metre as centimetres.

3. A square garden has a perimeter of 64 metres. What is the length of one side?

4. What is the perimeter of the rectangle?

$14\frac{1}{2}$cm

$5\frac{1}{2}$km
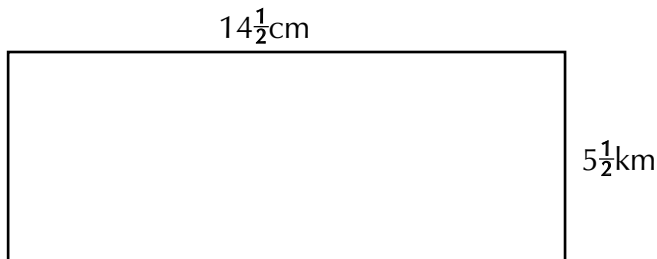
5. How many metres in $\frac{17}{10}$ kilometres?

6. Write 1008 metres as kilometres using the decimal point.

7. The perimeter of this rectangular field is 72 metres. What is the width of the field?

12m
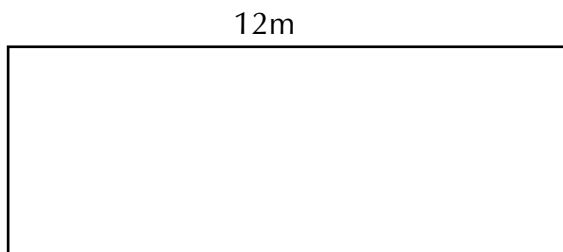
8. How much does it cost to fence a garden with a perimeter of 56 metres. Fencing costs €22.60 per metre.

9. One side of a square field is $\frac{3}{4}$km. What is the perimeter of the field?

10. A running track is 1·6 kilometres in length. How many laps will you need to do to travel 4800 metres?

11. Find the perimeter of these shapes.

(a)
2m
5m   5m
10m

(b)
8m   22m
20m   8m

Name: _____   Date: _____

1. **Make each of these numbers 10 times smaller.**

   (a) 1200

   (b) 2050

   (c) 750

   (d) 85

   (e) 12

   (f) 1

   (g) 0.2

   (h) 0.03

2. **Round the following to the nearest whole number.**

   (a) 1·75

   (b) 2·4

   (c) 0·665

   (d) 3·042

   (e) 13·269

   (f) 25·025

   (g) 32·226

   (h) 75·975

3. **How much for 1 of each of the following.**

Oranges	Bread Rolls	Yoghurts	Eggs	Biscuits
6 for €3	12 for €10.20	16 for €10.08	24 for €2.16	42 for €1.26

4. **Calculate the following.**

   (a) 74·2 ÷ 14

   (b) 9·36 ÷ 8

   (c) 5·92 ÷ 74

   (d) 3·36 ÷ 84

5. (a) 11 hairbands cost €10·89. How much for one hairband?

   (b) A man walks 13·72 kilometres over a period of 14 hours. On average, how far does he travel in one hour?

   (c) 12 toy cars weigh 4·2kg. What is the weight of single car.

   (d) What number must be multiplied by 26 to make 2·08?

Name: _____   Date: _____

1. **Make each of these numbers 100 times smaller.**

   (a) 1280

   (b) 335

   (c) 203·4

   (d) 94

   (e) 82·1

   (f) 10

   (g) $\frac{1}{10}$

   (h) 0·7

2. **Make each of the following numbers 1,000 times smaller.**

   (a) 1

   (b) 10

   (c) 17

   (d) 7

   (e) 2

   (f) 24

   (g) 106

   (i) 1005

3. **Decide whether you need to +, −, × or ÷ to calculate the following and then solve.**

   (a) Joanne returned a book to the library seven days late. She was fined €2·45.

   　(i) How much was the fine for one day?

   　(ii) Lisa returned a book that was 12 days late. How much will Lisa's fine be?

   (b) In O'Grady's Bakery six scones are €5·94.

   　(i) How much for one scone?

   　(ii) Loman bought 12 scones in O'Gradys. How much change did he get from €20?

   (c) Maebh parked her car for 12 hours in a car park. She paid €38·40. What was the charge per hour?

   (d) A group of 17 children were charged €15·13 for admission to a museum.

   　(i) What was the charge per child?

   　(ii) How much would a group of 24 children pay?

   (e) In Supersavers Joe bought 12 boxes of matches and had €6.88 change from €10. What was the cost of one box of matches?

   (f) A car wash charges €5·65 per wash. On a Saturday a car wash made €350.30.

   　How many cars did they wash?

   　How much did the car wash make on Sunday if 42 cars were washed?

   (g) Gary can run 75 metres in 67·5 seconds. How far can he run in 70 seconds?

   (h) 49 children's blocks weigh 3.92 kg. What is the weight of 50 children's blocks?

Name: _____ Date: _____

1. **Show the following 24-hour times on the clocks.**

(a)

17:25

(b)

22:50

(c)

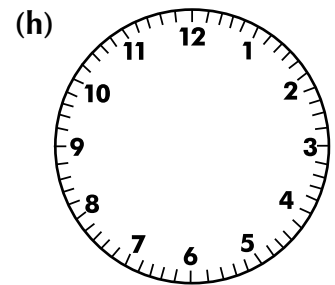14:05

(d)

23:45

(e)

06:30

(f)

00:00

(g)

09:35

(h)
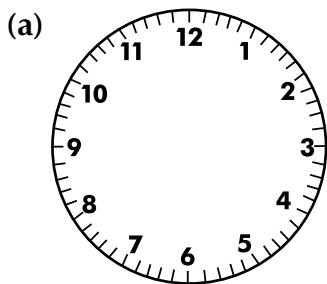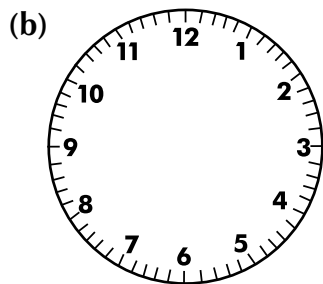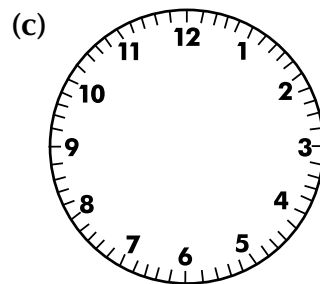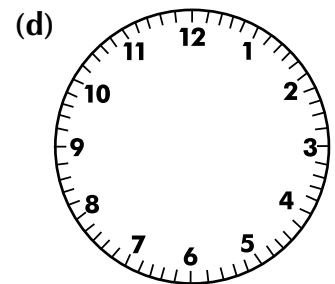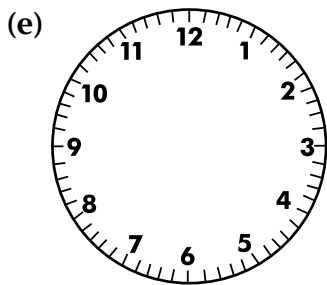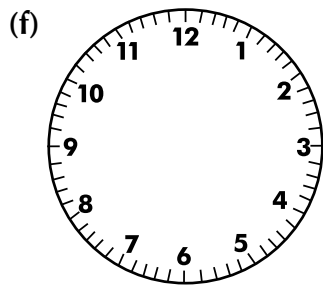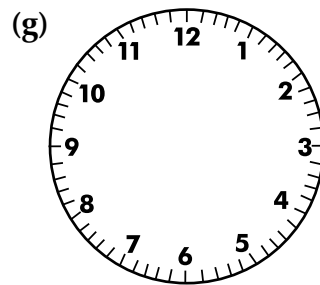
16:20

2. **Convert each of the following times into the 24-hour clock system.**

(a) Half past one at night.

(b) A quarter to four in the evening.

(c) 6:20 pm.

(d) Ten to ten at night.

(e) Midday

(f) 8:40pm.

(g) A quarter past six in the morning.

(h) A quarter past midnight.

3. **How many hours and minutes between each of the following times?**

(a) 01:20 and 06:50

(b) 11:55 and 13:02

(c) 14:27 and 17:31

(d) 13:16 and 14:28

(e) 18:30 and 19:55

(f) 20:07 and 22:55

(g) 23:04 and 00:37

(h) 00:49 and 04:04

Name: _____ Date: _____

Time – Early Finishers

Baile Átha Cliath – Ollpháirc M3 – Maigh Nuad – Longfort – Luan go hAoine (gan Saoire Phoiblí san áireamh) Dublin – M3 Parkway – Maynooth – Longford – Monday to Friday (excluding public holidays)																	
								M O N D A Y			T O			F R I D A Y			
DUBLIN Pearse	Dep.	11:10	....	....	12:10	....	12:43	....	....	....	13:40	14:12	....	....	....	15:10	....
Tara Street	Dep.	11:13	....	....	12:13	....	12:46	....	....	....	13:43	14:15	....	....	....	15:13	....
DUBLIN Connolly **L A**	Dep.	11:17	....	....	12:17	....	12:50	....	....	13:05	13:47	14:19	....	....	15:05	15:17	....
DOCKLANDS	Dep.	....	11:30	1200	....	12:30	....	13:00	13:30	....	....	....	14:30	15:00	....	....	15:30
Drumcondra	Dep.	11:21	....	....	12:21	....	12:54	....	....	....	13:51	14:23	....	....	....	15:21	....
Broombridge	Dep.	11:26	....	....	12:26	....	12:59	....	....	....	13:56	14:28	....	....	....	15:26	....
Ashtown	Dep.	11:29	....	....	12:29	....	13:02	....	....	....	13:59	14:31	....	....	....	15:29	....
Phoenix Park	Dep.	11:31	....	....	12:31	....	13:04	....	....	....	14:01	14:33	....	....	....	15:31	....
Castleknock	Dep.	11:33	....	....	12:33	....	13:06	....	....	....	14:03	14:35	....	....	....	15:33	....
Coolmine	Dep.	11:36	....	....	12:36	....	13:09	....	....	....	14:06	14:38	....	....	....	15:36	....
CLONSILLA	Arr.	11:38	11:43	12:13	12:38	12:43	13:11	13:16	13:46	....	14:08	14:40	14:44	15:14	....	15:38	15:46
Mansfield*	Dep.	....	11:47	12:17	....	12:47	....	13:20	13:50	....	....	....	14:48	15:18	....	....	15:50
Dunboyne	Dep.	....	11:52	12:22	....	12:52	....	13:25	13:55	....	....	....	14:53	15:23	....	....	15:55
M3 PARKWAY	Arr.	....	11:57	12:27	....	12:57	....	13:30	14:00	....	....	....	14:58	15:28	....	....	16:00
Leixlip (Confey)	Dep.	11:43	....	....	12:43	....	13:16	....	....	....	14:13	14:45	....	....	....	15:43	....
Leixlip (Louisa Bridge)	Dep.	11:46	....	....	12:46	....	13:19	....	....	....	14:16	14:48	....	....	....	15:46	....
MAYNOOTH	Arr.	11:54	....	....	12:54	....	13:27	....	....	13:35	14:24	14:55	....	....	15:34	15:54	....
Kilcock	Dep.	....	....	....	....	....	....	....	....	13:41	....	....	....	....	15:41	....	....
Enfield	Arr..	....	....	....	....	....	....	....	....	13:51	....	....	....	....	15:50	....	....
Mullingar	Arr.	....	....	....	....	....	....	....	....	14:15	....	....	....	....	16:15	....	....
Edgeworthstown	Dep.	....	....	....	....	....	....	....	....	14:34	....	....	....	....	16:35	....	....
LONGFORD	Arr.	....	....	....	....	....	....	....	....	14:44	....	....	....	....	16:45	....	....

1. Julie is in Pearse station, she needs to be in Longford for 3pm. Which train should she take?

2. How many minutes does it take the train to travel from Pearse Station to Connolly Station?

3. How long does it take the 12.43 train to travel from Pearse Station to Maynooth?

4. Which train takes the least amount of time to teach Longford: the 13:05 or the 15:05?

5. True or False: The train that reaches Maynooth at 13:27 leaves Connolly Station at a quarter to twelve.

6. What is the latest train Gearóid can catch to be in Castleknock at 1pm?

7. How long does the 12:10 train take to travel from Pearse Station to Coolmine?

8. True or False: It always takes three minutes to travel from Leixlip Confey to Leixlip Louisa Bridge.

9. True or False: It always take 8 minutes to travel from Leixlip Bridge to Maynooth.

10. How many trains leave Dublin for Maynooth between midday and 3pm?

Name: _____   Date: _____
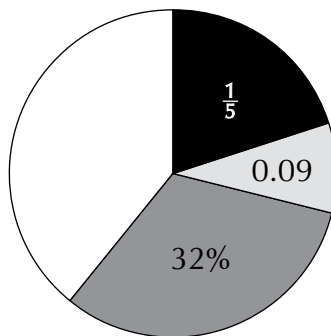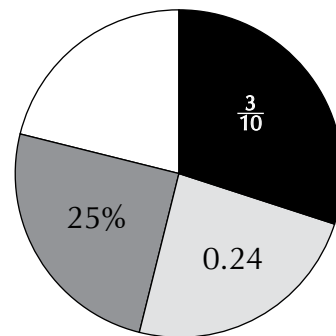
1. (a)
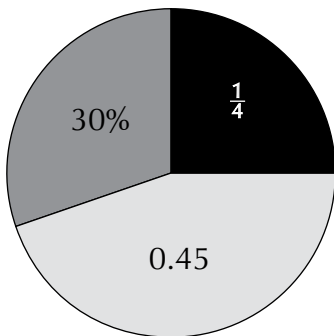
What % is black?

(b)

What % is unshaded?

(c)

What % is unshaded?

2. **Write each fraction as a decimal and a percentage.**

(a) $\frac{1}{2}$ (b) $\frac{1}{4}$

(c) $\frac{1}{5}$ (d) $\frac{2}{5}$

(e) $\frac{3}{4}$ (f) $\frac{3}{10}$

(g) $\frac{4}{5}$ (h) $\frac{61}{100}$

3. **Write each percentage as a decimal and as a fraction in its lowest terms.**

(a) 25%   (b) 80%

(c) 12%   (d) 50%

(e) 75%   (f) 90%

(g) 35%   (h) 5%

4. **Write each decimal as a percent and as a fraction in its lowest terms.**

(a) 0.8   (b) 0.25

(c) 0.05   (d) 0.1

(e) 0.45   (f) 0.75

(g) 0.3   (h) 0.02

Name: _____   Date: _____

1. **Change each decimal to a percent and to a fraction or mixed number in its lowest terms.**

   (a) 0·4   (b) 0·96

   (c) 0·05   (d) 0·83

   (e) 0·25   (f) 0·9

   (g) 1·1   (h) 1·55

2. **Change each percentage to a decimal.**

   (a) 96%   (b) 34%

   (c) 50%   (d) 62%

   (e) 3%   (f) 100%

   (g) $67\frac{1}{2}$%   (h) $12\frac{1}{2}$%

3. **Calculate the following.**

   (a) 35% of ___ = 14   (b) $\frac{5}{8}$ of ___ = 10

   (c) $\frac{2}{3}$ of ___ = 12   (d) $\frac{3}{20}$ of ___ = 15

   (e) 95% of ___ = 95   (f) $\frac{13}{20}$ of ___ = 39

   (g) 0.25 of ___ = 4   (h) 0.75 of ___ = 18

4. (a) 0·75 of the apples in a box are red. What percentage are green?

   (b) In a survey 0·22 preferred water to milk. What percentage of people preferred milk?

   (c) Jamie scored 65 out of 100 in his maths test. What percentage did he get?

   (d) 0.55 of the animals on a farm are sheep, $\frac{1}{5}$ are cattle and the rest are horses. What percentage of the animals are horses?

   (e) A pizza was divided equally among 5 children. What percentage of the pizza did they each get?

   (f) Jane spent 0.35 of her money in one shop and 25% in another. What fraction of her money did she spend?

   (g) Which amount is greater, 70% of €10 or $\frac{4}{5}$ of €9 and by how much?

   (h) A large pizza had 16 slices. If 75% of the pizza was eaten. How many slices would be left?

Name: _____   Date: _____

1. **Write the following amounts using the € sign.**
   (a) 2c   (b) 17c
   (c) 103c   (d) 250c
   (e) 1000c   (f) 2550c
   (g) 20000c   (h) 32575c

2. **Write the following amounts as cent.**
   (a) €0.05   (b) €0.33
   (c) €2.68   (d) €9.99
   (e) €56.47   (f) €112.50
   (g) €275.25   (h) €560.34

3. **Solve the following.**
   (a) How much for 1 tomato if 6 cost 96c?
   (b) 10 muffins cost €20. How much for 15 muffins?
   (c) 6 eggs cost €2·28. How much for 12 eggs?
   (d) 500g of cornflakes cost €3·84. How much for 1kg of cornflakes?
   (e) 250ml of apple juice costs €0·85. How much for 750ml of the same apple juice?

4. **Which is better value for money?**
   (a) 6 bananas for €2·28 or 9 for €3·15?
   (b) 10 pencils for €5·50 or 15 for €7·95?
   (c) 250ml of milk for €0·86 or 500ml for €1·50?
   (d) 400g of butter for €1·90 or 2kg for €9?
   (e) 1½kg of wheatflakes for €3 or 1kg for €1·90?

Name: _____ Date: _____

Money – Early Finishers

1. (a) 6 apples got 96c. How much for

   (i) 12 apples?

   (ii) 15 apples?

 (b) 10 pens cost €1·99. How much for

   (i) 2 pens?

   (ii) 12 pens?

 (c) 9 fruit bars cost €1·99. How much for 18 fruit bars?

 (d) 500ml of pineapple juice cost €1.40. How much for

   (i) 1 litre?

   (ii) $1\frac{1}{2}$ litres?

 (e) 250ml of water is 80c. How much for

   (i) 1 litre?

   (ii) 750ml ?

 (f) $1\frac{1}{2}$kg of parsnips cost €1.20. How much for 1kg?

 (g) 2.5kg of turnips cost €2.50. How much for

   (i) 1kg?

   (ii) $1\frac{1}{2}$kg?

   (iii) 3000g?

 (h) 0.75 metres of material costs €6.60. How much for

   (i) 1 metre?

   (ii) 1·5 metres?

   (iii) 500cm?

2. **Which is better value and by how much?**

 (a) 8 plums for €3.84 or 6 for €2.70?

 (b) 0.8 litres of hairspray for €1.80 or 1.2 litres for €2.50?

 (c) $\frac{1}{4}$kg of castor sugar for 79c or 750g for €2.40?

 (d) $1\frac{1}{2}$ metres of string for €1.80 or 1 metre for €1.50? How much would I save if I bought 4 metres of string?

 (e) 2 hours in the gym for €16 or 40 minutes for €5?

Name: _____   Date: _____

Percentages 2 – Alternative Questions

1. For a, b and c shade 50% red, one-fifth green and 0·3 blue.

(a)
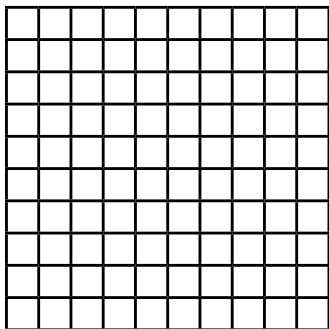
(b)
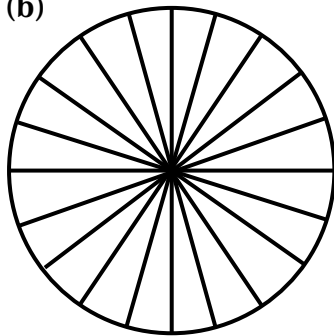
(c)
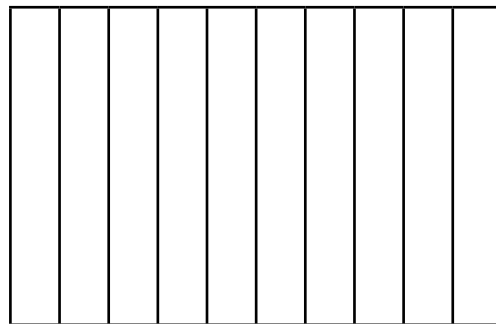
2. Write the number.

(a) I am a number with nothing in the units place, 9 in the hundreds place and 3 in the tens place. _____

(b) I am a number that is the 25 times 400. _____

(c) I measure three hundred and twenty metres. _____

(d) I am the number one thousand and forty one. _____

3. Find the whole number for each of the following amounts.

(a) 20% is 5   (b) 85% is 17   (c) 0.25 is 15   (d) 0.6 is 15

(e) 35% is 14   (f) 99% is 99   (g) $\frac{7}{10}$ is 35   (h) 2% is 10

4. Express the first of these pairs of numbers as a percentage of the second.

(a) 1 and 2   (b) 3 and 4   (c) 1 and 5   (d) 7 and 10

(e) 1 and 4   (f) 3 and 5   (g) 2 and 5   (h) 4 and 5

5. Increase each of these amounts by 10%.

(a) 20   (b) €3   (c) 100   (d) €1.50

(e) 70   (f) €10.50   (g) 300   (h) €0.50

6. Decrease each of these amounts by 10%.

(a) 10   (b) €4   (c) 50   (d) €1.20

(e) 150   (f) €20.90   (g) 125   (h) €0.80

Name: _____   Date: _____

1. What percentage of 5 is 4?

2. What is 0·25 of 48?

3. ___ is 40% of 15.

4. Carla and Gillian are on a 300km journey. If they travelled 70% of the way how many kilometres have they left?

5. There are 40 questions on Liam's maths test. He has 75% of the test completed. How many more questions has he yet to do?

6. Máire scored 17 out of 20 in her spelling test. What percentage did she get?

7. 0.45 of the 20 children in 5th class live in a town. What percentage of the children in the class live outside of the town?

8. Ciara drank 0.2l of a 1 litre carton of orange juice. How many millilitres of juice were left?

9. At a football match 25% of the crowd were children, 35% were women. What fraction were men? If there were 600 at the match how many of each group were there?

10. A coat is €60. In a sale it was reduced by 10%. What is the new price of the coat?

11. A pair of shoes are €50. In a sale they are reduced by 20%. What is their new price?

12. In June a school book was €16. In September the book increased in price by 10%. What is the new price of the school book?

13. A flight to New York is €400. In January the price will increase by 50%. What will a flight to New York cost then?

14. A TV cost €250. If Liam waits until the sale, the TV will then be 30% cheaper. How much would Liam save if he waited until the sale?

15. A holiday for a family of four to Tenerife currently costs €2500. If the Murphy family wait until November the same holiday will be 35% cheaper. How much would they save if they wait until November?

Name: _____   Date: _____

Area – Alternative Questions

1. **For each of the following would you use squared centimetres/squared metres to find the area?**

   (a) Kitchen floor　　　　**(b)** Table top　　　　**(c)** Book cover

   (d) House　　　　　　　**(e)** Basketball court　　**(f)** White board
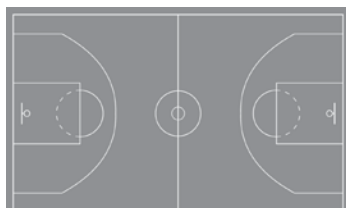
2. **Find the area of the following shapes.**

   ☐ = 1 squared metre

   (a)　　　　**(b)**　　　　　　　　**(c)**
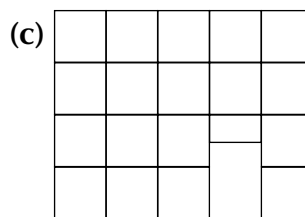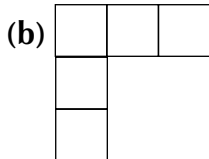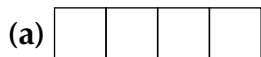
3. **Find the area and perimeter of each of these square shaped gardens. Give all answers in metres.**

   (a) L = 3m　　　　　　　　　**(b)** L = 5m

   (c) L = 8m　　　　　　　　　**(d)** L = 12m

   (e) L = 15.5m　　　　　　　　**(f)** L = $20\frac{1}{2}$m

   (g) L = 90cm　　　　　　　　**(h)** L = 110cm

4. **Find the area and perimeter of each of these rectangular gardens. Give all answers in metres.**

   (a) L = 6m　　　W = 2m

   (b) L = 8m　　　W = 4m

   (c) L = 12m　　W = 9m

   (d) L = $14\frac{1}{2}$m　W = 6m

Name: _____　　Date: _____

1. **Fill in the missing information in the table**

	Length	Width	Area	Perimeter
(a)	8m	5m		
(b)	6m		18m²	
(c)		10m	120m²	
(d)	12m			38m
(e)	20m			60m
(f)			36m²	24m
(g)			56m²	30m
(h)	16m			60m

2. **Find the perimeter of the following shapes.**

(a)

4m

$10\frac{1}{2}$m

(b)

6m   6m

2m

(c)

12m

2m

5m

10m

5m
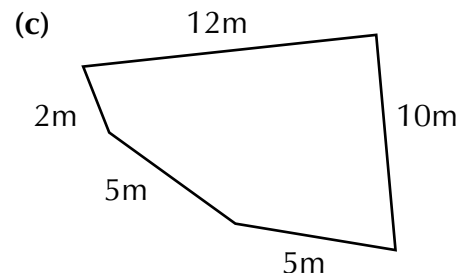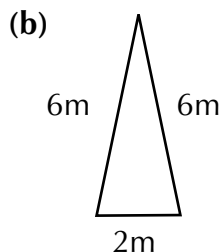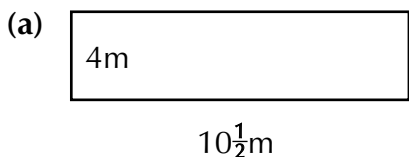
3. **Solve the following.**

(a) Find the area of a rectangular field of length 20m and width $10\frac{1}{4}$ metres.

(b) What is the cost of planting a square garden of sides 11 metres with flowers at a cost of €14.90 per square metre?

(c) Paul is decorating his sitting room that is 8m in length and 5m in width. What is the cost of wallpapering the wall if the paper costs €22·50 per metre?

(d) What is the area of a kitchen floor if it costs €387 to tile the floor at a cost of €43 per squared metre?

(e) A square tile has an area of 0·16m².

   (i) What is the length of the side of the tile?

   (ii) How many tiles would be needed for a floor area of 8 metres squared?

Name: _____   Date: _____

1. (a) Which is warmer 0°c or ⁺4°c

   (b) Which is warmer ⁻2°c or ⁻5°c

   (a) Which is warmer 0°c or ⁻7°c

   (b) Which is warmer ⁺7°c or ⁺12°c

   (c) Which is warmer ⁻10°c or ⁻8°c

2. **How many metres does a diver travel if he moves from**

   (a) 0 to ⁻7 metres

   (b) ⁻1 to ⁻6 metres

   (c) ⁻1 to ⁻10 metres

   (d) 0 to ⁻9 metres

   (e) ⁻6 to ⁻8 metres

3. **Answer the questions about the porter at Hotel York. Use the number line.**

   ⁻4 ⁻3 ⁻2 ⁻1 0 1 2 3 4 5 6 7 8 9 10
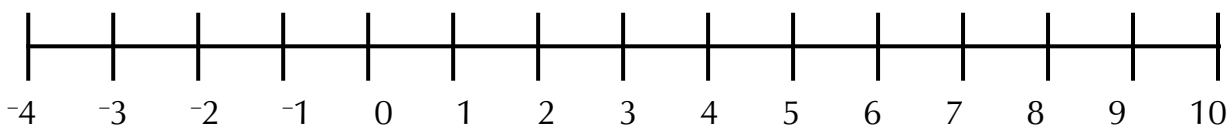
   (a) If the porter started on ⁺9 and then went down 11 floors, on what floor would he be?

   (b) If he started on ⁻4, went up to ⁺7 and then back down to ⁺1, how many floors had he travelled?

   (c) If he started on ⁺2, went up 7 floors and down 11, what floor would he then be on?

   (d) If the porter started on ⁺12 and took the lift to ⁻3, how many floors would he have travelled? Is there a trick?

   (e) It takes the lift 3 seconds to pass through each floor. How long does it take to get from ⁺2 to ⁺9?

   (f) How long does it take to get from ⁻3 to ⁺7?

   (g) It takes the lift an extra second to pass a floor for every 10 people that are in it. How long does it take 20 people to go from ⁻2 to ⁺9?

Name: _____   Date: _____

Directed Numbers – Early Finishers

1. **Draw a thermometer and show all the degrees between** $^-$**25°c and** $^+$**25°c.**

2. **Give the next three terms in each sequence.**

    (a) $^-$6, $^-$4, $^-$2,

    (b) $^-$9, $^-$6, $^-$3,

    (c) $^+$6, $^+$3, 0,

    (d) $^+$15, $^+$10, $^+$5,

    (e) 0, $^-$4, $^-$8,

3. **What is the difference between the following temperatures?**

    (a) $^+$12°c and $^-$3°c

    (b) $^-$5°c and $^+$4°c

    (c) 0°c and $^-$6°c

    (d) $^-$8°c and $^+$2°c

    (e) $^-$15°c and $^+$10°c

    (f) $^-$11°c and 0°c

    (g) $^+$9°c and $^-$9°c

    (h) $^-$20°c and $^-$25°c

4. **This is a statement of the transactions on Clíodhna's bank account. She has a €25 overdraft facility with her bank. Fill in the missing amounts.**

Date	Details	Debit	Credit	Balance
1.4.12	Balance			+ €20
2.4.12	Deposit		€15	€
9.4.12	Withdrawal	€40		€
21.4.12	Withdrawal	€10		€
24.4.12	Deposit		€15	€
29.4.12	Deposit		€10	€
1.5.12	Balance			€

Name: _____   Date: _____

1. **Construct a circle with**

    (a) Radius of 4cm

    (b) Diameter of 6cm

    (c) Radius of 2cm

    (d) Diameter of 9cm

2. **What is the length of the radius when**

    (a) The diameter is 8cm. Radius = _____ cm

    (b) The diameter is 10cm. Radius = _____ cm

    (c) The diameter is 11cm. Radius = _____ cm

3. **What is the length of the diameter when**

    (a) Radius is 2cm. Diameter = _____ cm

    (b) Radius is 9cm. Diameter = _____ cm

    (c) Radius is $4\frac{1}{2}$cm. Diameter = _____ cm

4. **Label the parts of a circle.**
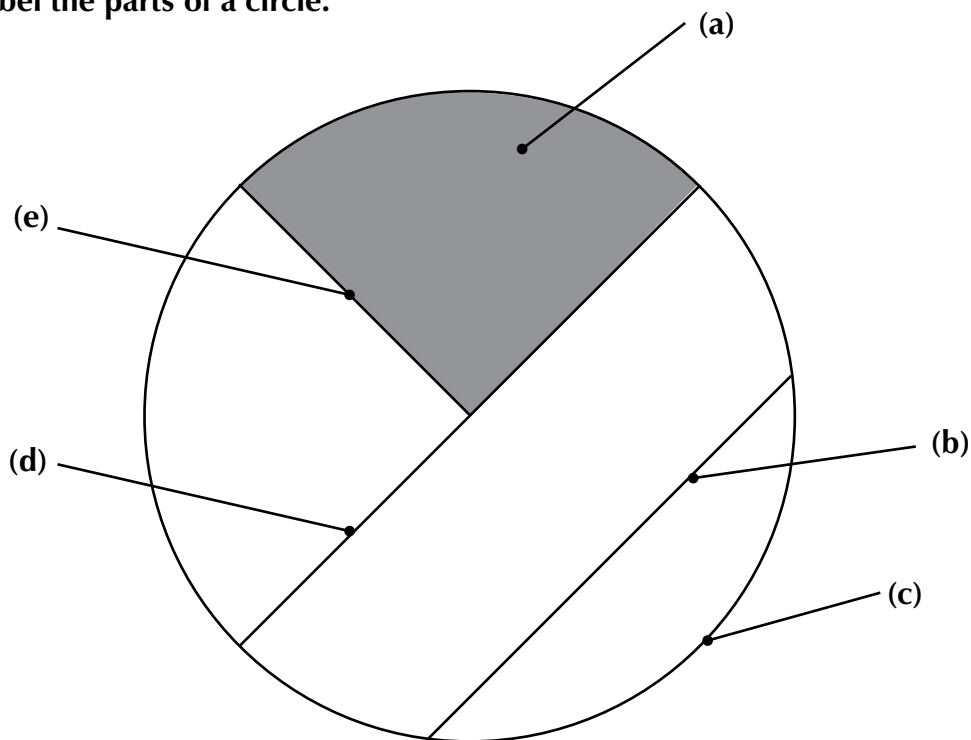
1. **Finish the sequence.**

   (a) 5, 25, 125, _____

   (b) $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, _____

   (c) 0·001, 0·003, 0·009, _____

   (d) 78, 77.5, 77, _____

   (e) 2·1, 4·4, 6·7, _____

   (f) $\frac{1}{20}$, $\frac{1}{10}$, $\frac{3}{20}$, _____

   (g) $\frac{23}{5}$, $4\frac{1}{2}$, $\frac{22}{5}$, _____

   (h) 0·045, 0·09, 0·18, _____

2. **Remember the order rule to solve these.**

   (a) $26 - 20 \div 4 =$

   (b) $(0.4 \times 12) + 0.2 =$

   (c) $19 \times 5 - 10 =$

   (d) $22 + (11.8 \times 4) =$

   (e) $0.66 \div 22 + 1.7 =$

   (f) $9 - \frac{1}{4} \times 3 =$

   (g) $\frac{7}{8} + \frac{7}{8} \times 8 =$

   (h) $(1\frac{9}{10} - \frac{4}{2}) \times 6 =$

3. **Use +, −, ×, ÷ () to make these equations true.**

   (a) 1 _____ 3 _____ 5 = 9

   (b) 1 _____ 3 _____ 5 = -1

   (c) 1 _____ 3 _____ 5 = 3

   (d) 1 _____ 3 _____ 5 = 15

   (e) 1 _____ 3 _____ 5 = −8

   (f) 1 _____ 3 _____ 5 = $\frac{3}{5}$

   (g) 1 _____ 3 _____ 5 = $1\frac{3}{5}$

   (h) 1 _____ 3 _____ 5 = −10

Name: _____   Date: _____

1. **Rename each weight using grammes.**

    (a) 0.8kg

    (b) $\frac{7}{10}$kg

    (c) 0.076kg

    (d) 1.9kg

    (e) $\frac{1}{5}$kg

    (f) 0.04kg

    (g) 0.006kg

    (h) 2.05kg

2. **Rename each weight as kilogrammes using the decimal point.**

    (a) 1500g

    (b) 800g

    (c) 650g

    (d) 1250g

    (e) 90g

    (f) 8g

    (g) 2436g

    (h) 21339g

3. **Solve the following.**

    (a) An empty school bag has a weight of 0.8kg. The bag is five times heavier when full. What is the weight of the bag when full?

    (b) A parcel weighs 2.75kg. How much short of 3kg is it?

    (c) $\frac{1}{2}$ kg of grapes is €1.70. How much for 2kg?

    (d) A bag of coal weighs 10kg. How many buckets each weighing 1.25kg can be filled from the bag?

    (e) A box of tea bags weighs 800g. If each tea bag weighs 16g how many tea bags would you expect to find in a box?

Name: _____   Date: _____

1. **(a)** How many grammes in 0.08kg?

   (b) How many grammes in 0.14kg?

   (c) How many kilogrammes in 5000g?

   (d) Write 2645g as kilogrammes using the decimal point.

   (e) Write 844g as kilogrammes using the decimal point.

2. **Can you match the following fractions and decimals with their place on the number line?**

   (a) $\frac{3}{10}$kg   **(b)** $\frac{4}{5}$kg   **(c)** 0·66kg

   (d) $\frac{76}{100}$kg   **(e)** 0·5kg   **(f)** 0·98kg

   (g) 0·58kg   **(h)** 0·01kg
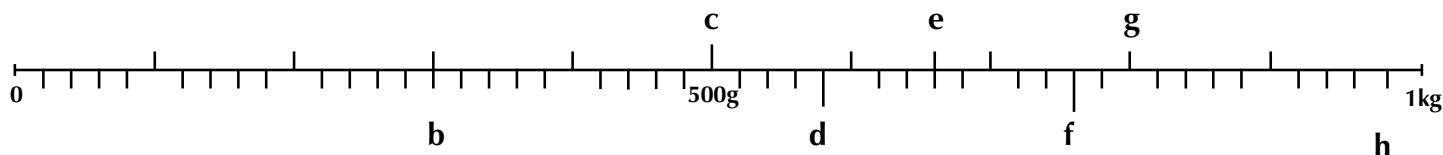
3. **Answer true or false to each of the following.**

   (a) $\frac{1}{5}$kg = 200g   **(b)** 0.75kg > 7500g   **(c)** 250g < $\frac{1}{4}$kg

   (d) $\frac{74}{100}$kg < 749g   **(e)** $\frac{12}{1000}$kg = 12g   **(f)** $\frac{11}{10}$kg < 1000kg

4. **(a)** What is the difference between 2.25kg and 0.9kg?

   (b) What is the sum of the weight of three suitcases which weigh 4kg, 250g, 5.68kg and 6070g?

   (c) A bag of icing sugar has a weight of 300g. How many spoons of icing sugar, each with a weight of 6g, can be taken from the bag?

   (d) 250g of olives are €80. How much for $1\frac{1}{2}$kg?

   (e) A box of cereal weighs 700g. How many bowls of cereal each with a weight of 35g can be taken from the cereal box?

Name: _____   Date: _____

1. **Are these number sentences true or false?**

   (a) $108 \div 9 = 10 + 12$

   (b) $200 = 10 \times 10 \times 20$

   (c) $78 > 99 - 22$

   (d) $100 < 82 + 8$

   (e) $5 + 6 \times 4 > 45$

   (f) $\frac{3}{4}$ of $76 > \frac{1}{2}$ of 138

2. **Ring the correct open sentence to go with each statement.**

   (a) Cáit bought a dress for €30 and sold it for €40. How much did she make?

   ____ = €40 + €30   ____ − €30 = €40   ____ = €40 − €30

   (b) Mary bought a dozen sweets. Her friend bought some more. Together they had 24 sweets. How many sweets did her friend buy?

   ____ = 24 − 12   12 + 24 = ____   12 = ____ − 24

   (c) Gillian saw 24 films. 4 of the films won Oscar awards. How many films did not get an Oscar?

   24 − ____ = 4   ____ = 24 − 4   24 + 4 = ____

   (d) Barry was practising his basketball shots. He shot 80 balls. Only 35 of them went into the basket. How many did not get into the basket?

   ____ = 80 ____ 35   ____ = 80 − 35   ____ − 35 = 80

3. **Write each of these as an open sentence using a frame.**

   (a) A number divided by 4 is equal to 6.

   (b) A number multiplied by 8 is equal to 56.

   (c) 78 minus a number is equal to fifty.

   (d) 108 divided by a number is equal to 9.

   (e) 32 plus a number is equal to 71.

   (f) A number multiplied by forty is 200.

   (g) Thirty three times a number is three hundred and thirty.

Name: _____   Date: _____
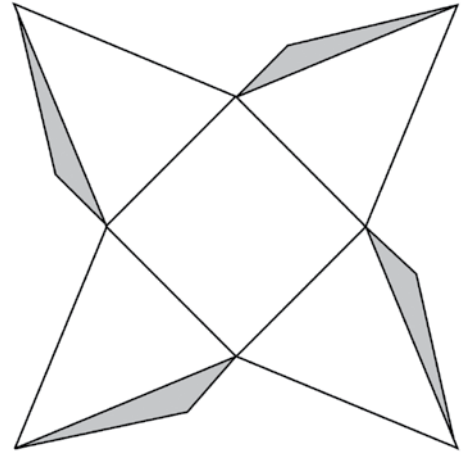
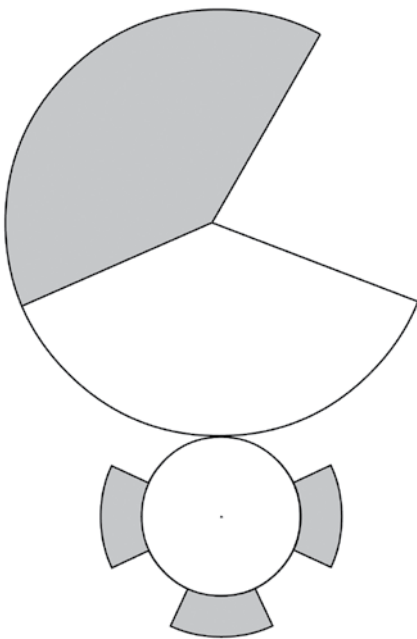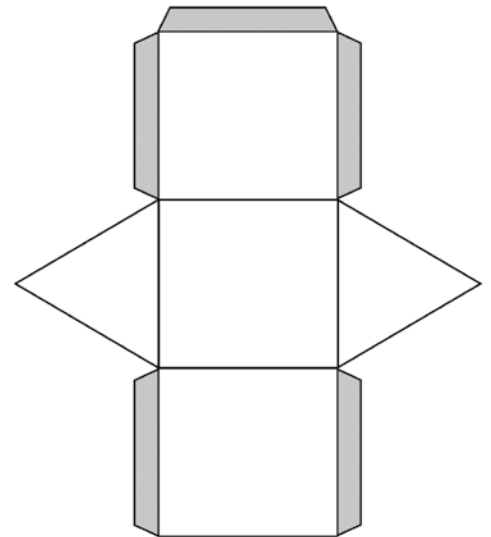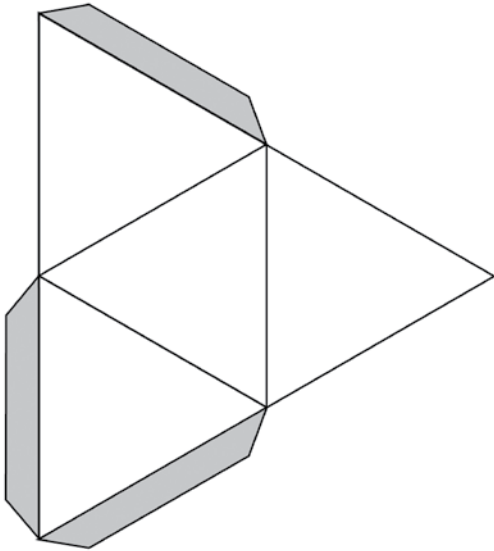1. **Construct 3D shapes from the following nets.**

Cube

Cuboid
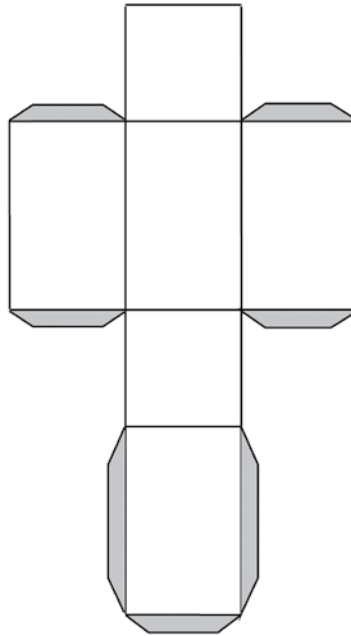
Pyramid

Cone

Tetrahedron
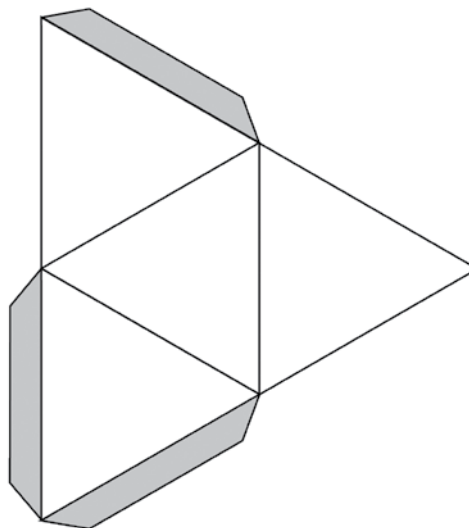
Triangular Prism

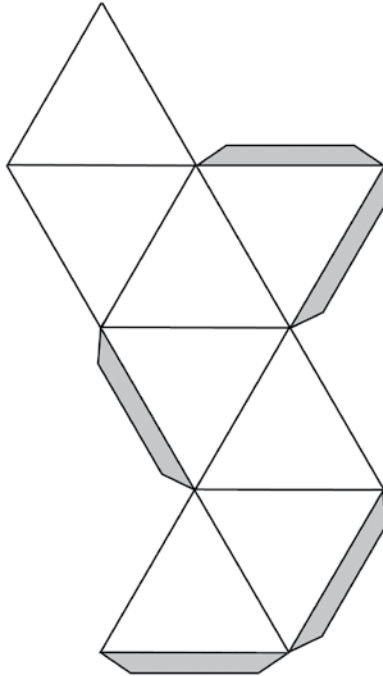Name: _____ Date: _____

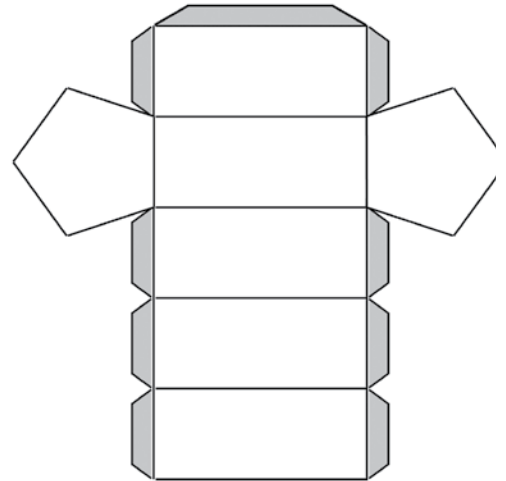## 3D Shapes – Early Finishers

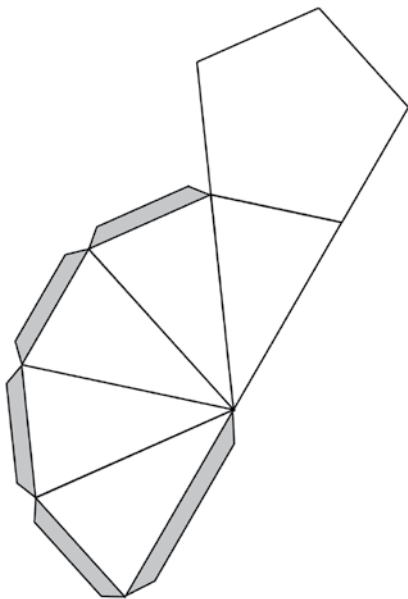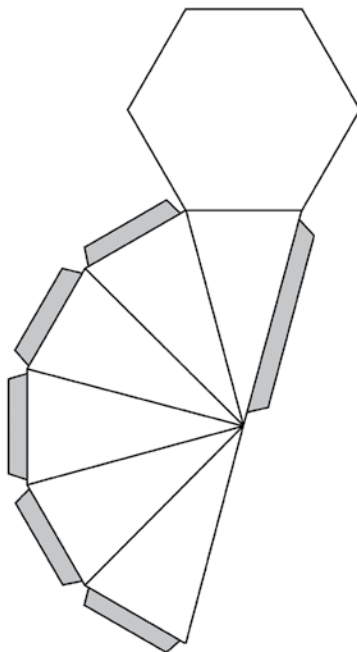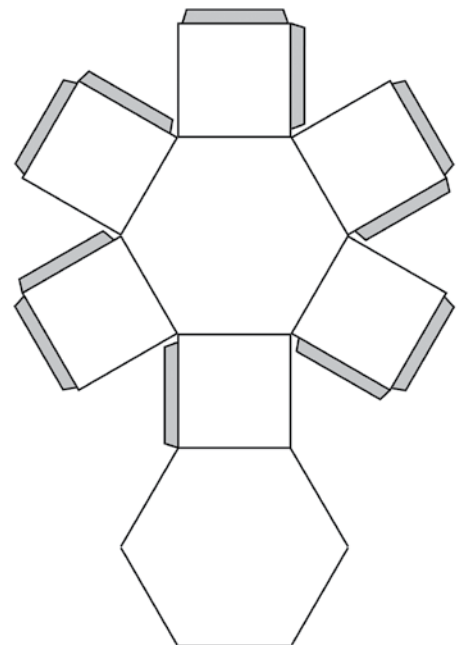1. Construct 3D shapes from the following nets.

Tetrahedron

Octahedron

Penthonal Prism

Penthonal Pyramid

Hexagonal Pyramid

Hexagonal Prism

Name: _____   Date: _____

1. **Find the average of each of these sets of numbers.**

    (a) 31, 34, 51, 61 and 78

    (b) 7, 10, 35, 67 and 81

    (c) 25, 35, 37 and 75

    (d) 89, 90, 91, 98, 100 and 102

    (e) 263, 393 and 415

    (f) €6, €6 and €10

2. **What is the missing number in each of these.**

    (a) (1 + ___ + 20 +7) ÷ 4 = 11

    (b) (3 + 7 + 5 + ___) ÷ 4 = 12

    (c) (10 + 10 + 10 + 2 + 3) ÷ ___ = 7

    (d) (12 + 11 + 14 + ___ + 4) ÷ 5 = 10

    (e) (9 + ___ + 8 + 11 + 4) ÷ 5 = 8

    (f) (12 + 13 + 11 + 3 + ___) ÷ 5 = 12

3. **Fill in the table and draw the pie chart.**

   Favourite Musical Instrument

Instrument	Piano	Guitar	Violin	Tin Whistle	Banjo
No. of Children	4	1	1	2	2
Fraction of total					$\frac{1}{5}$
Angle	144°	36°			

4. **10 people were asked their favourite tree. Design a pie chart to show this information.**

Ash	Oak	Birch	Sycamore
2	3	1	4

Name: _____   Date: _____

1. **Find these averages. You may use your calculator.**

   (a) Find the average length of time spent on maths homework in your class. Calculate the percentage of people who take less and who take more than the average time.

   (b) Find the average length of time you spend watching TV on a weekday and at the weekend. Compare your average with the average spent by other children.

   (c) Find the average number of text messages sent in your class every week. Calculate the average cost incurred per pupil and the total amount spent by the class.

2. (a) The average of a list of 6 numbers is 20. If we remove one of the numbers, the average of the remaining numbers is 15. What is the number that was removed?

   (b) A class of 25 students took a science test. 10 students had an average of 80. The other students had an average of 60. What is the average score of the whole class?

3. **10 people were asked their favourite football team. Design a pie chart to show this information.**

   Favourite League of Ireland Football Club

St Patrick's Athletic	Cork City	Galway United	Derry City
1	3	4	2

4. **24 people were asked their favourite colour. Design a pie chart to show this information.**

Purple	Green	Pink	Blue	Black	Red	White
1	3	4	1	2	12	1

Name: _____ Date: _____

1. **Position the following quantities on the number line.**
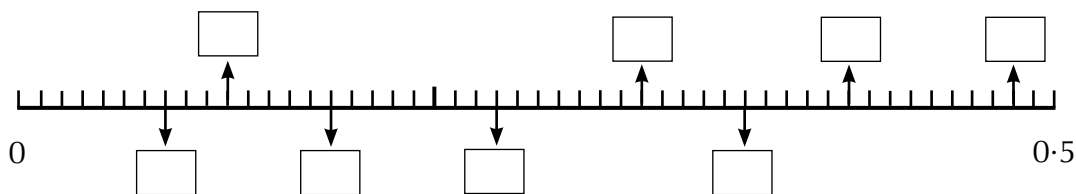
(a) $\frac{7}{1000}$l

(b) $\frac{1}{100}$l

(c) 0·03l

(d) 0·015l

(e) $\frac{23}{1000}$l

(f) 0.035l

(g) $\frac{4}{100}$l

(h) 0·048l

0   0·5

2. **Fill in the missing symbol > = <.**

(a) 0·05l ☐ 5ml

(b) $\frac{1}{10}$l ☐ 100ml

(c) 1·2l ☐ 120ml

(d) $\frac{4}{5}$l ☐ 800ml

(e) 0·07l ☐ 700ml

(f) $\frac{3}{100}$l ☐ 30ml

(g) $1\frac{3}{4}$l ☐ 1700ml

(h) $2\frac{7}{1000}$l ☐ 2007ml

3. **Solve the following.**

(a) Write 4566ml as litres using the decimal point.

(b) How many 250ml glasses of orange can be filled from a 2 litre bottle?

(c) How many teaspoons of 5ml can be taken from a cough bottle of 60ml?

(d) What is $3\frac{1}{2}$ times 400ml? Write your answer in litres using the decimal point.

(e) Express 200ml as a fraction of 2.46 litres.

(f) Express 0·7 litres as a percentage of 1000ml.

(g) What is the difference between 0.05 litres and 500ml ?

(h) How many 300ml glasses of orange can be poured from a 2.1 litre bottle?

(i) Share 0.75 litres of water equally among 3 people.

(j) What must be added to 80ml to make 1 litre?

Name: _____   Date: _____

1. **Write a sentence where each of the following words is the outcome.**

   (a) Impossible

   (b) Even chance

   (c) Likely

   (d) Certain

2. **The spinner has 6 equal parts. Answer the questions.**

   (a) What is the chance of spinning a 2?

   (b) What is the chance of spinning a 6?

   (c) What is the chance of spinning a 1 or 3?

   (d) What is the chance of spinning an odd number?

   (e) What is the chance of spinning an even number?
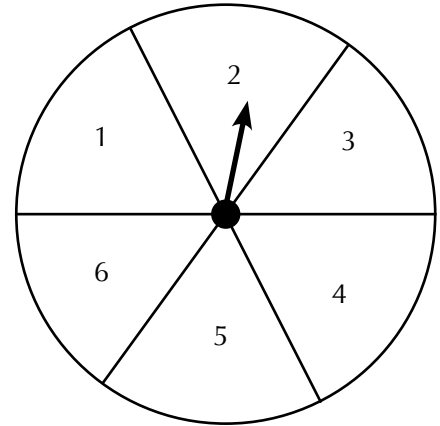
3. **The bag has 12 coloured cubes. What is the chance of**

   (a) Pulling out a red?   R = red

   (b) Pulling out a blue?   Y = yellow

   (c) Pulling out a green?   B = blue

   (d) Pulling out a yellow?   G = green

   (e) Pulling out a purple?   P = purple

   (f) Pulling out a yellow or green?

   (g) Pulling out a purple or yellow?

Name: _____   Date: _____

Chance – Early Finishers
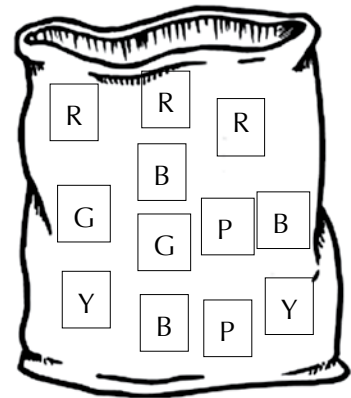
1. **Investigate.**

   Draw a circle of radius 5cm. Draw in the diameter of the circle. Using the diameter as a base line draw a line of 36 degrees and continue to draw line until the circle is divided into 10 equal segments. Use a ruler to connect the lines. Cut out and colour in as shown. Use a brass paper fastener as the spinning arrow.
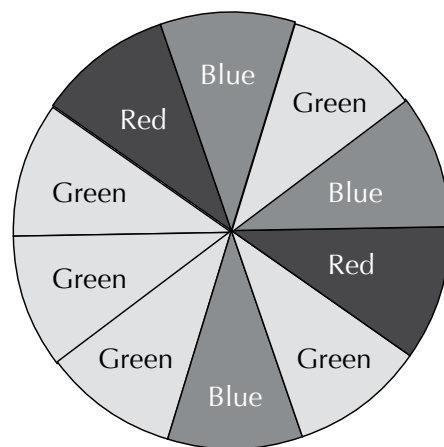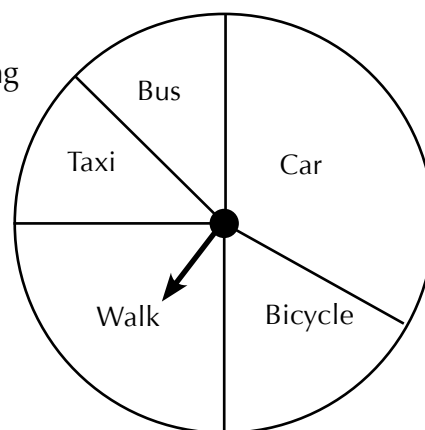
   (a) What is the chances of spinning **(i)** blue **(ii)** red **(iii)** green.

   (b) Predict the fraction of spins that will be blue, red and green out of 30 spins.

   (c) Spin the arrow 20 times and record your results in the table

Colour	Predict	Tally	Frequency	Fraction
Blue				
Red				
Green				

2. **This spinner represents how class 5A come to school. Decide whether each of the following statements are true or false.**

   (a) There is the same chance of walking to school as there is of getting the bus.

   (b) There is more a chance of going by car then going by bicycle.

   (c) There is an even chance of going by car.

   (d) There is the same chance of going by bike as there is of going by taxi.

   (e) There is a 50:50 chance of going by bus, taxi or walking.

   (f) There is a 1 in 4 chance of walking.

   (g) There is a 1 in 6 chance of going by bicycle

   (h) There is a 25% chance of walking.

   (i) There is a 1 in 8 chance of getting the bus.

Name: _____   Date: _____