Name: _____

Homework - Rounding

Question 1

Round each of the following to **2 decimal places** :-

a 1·3759

b 0·1991.

Question 2

How many significant figures have each of the following numbers been rounded to ?

a 0·200

b 1·050

c 13005.

Question 3

To estimate the answer to 589 300 x 357, Amy uses 600 000 x 400. Will Amy's estimate be on the high side or the low side ? Explain.

Name: _____

Homework – Whole numbers

Question 1

Charles earned £890 per month and Angela earned £680.
(i) How much did they earn altogether ?

(ii) How much more did Charles earn than Angela ?

Question 2

A wallpaper border is 7 centimetres wide and 2165 centimetres long.
Calculate its area (Area = length x breadth).

Question 3

Do these mentally:

   a) 50 x 600   b) 200 ÷ 40   c) 80 000 x 300

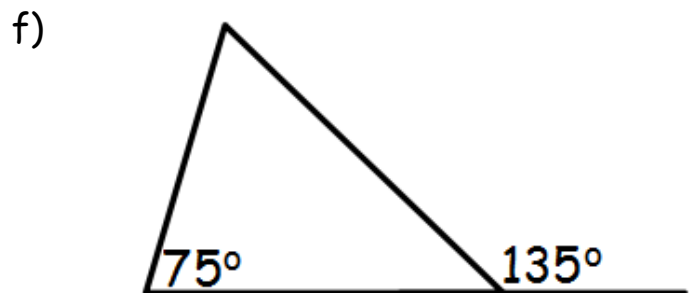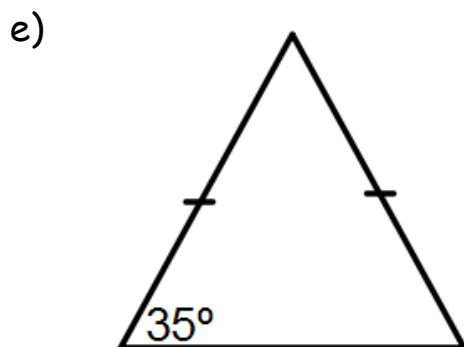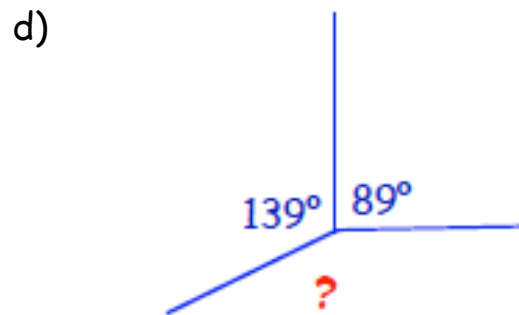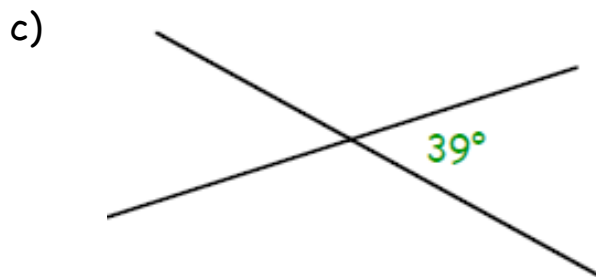Question 4

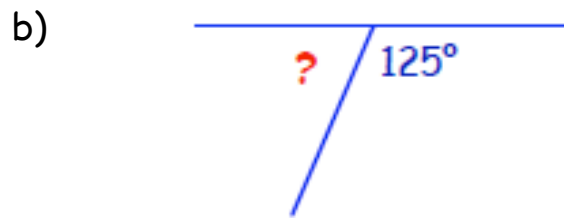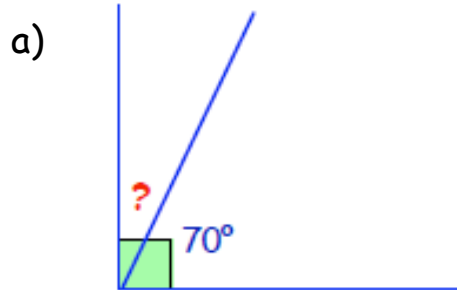Carefully, work out the answers to the following :-
a 18 - 2 x 5   **b** 20 - 15 ÷ 5 + 4

Name: _____

Homework – Angles

Complete each diagram below, filling in all the missing angles

a)

?
70°

b)

? / 125°

c)

39°

d)

139° | 89°
?

e)

35°

f)

75°   135°

Name: _____

Homework – Integers

Question 1

a) 6 – 15   b) -5 + (-8)   c) -8 + 11

Question 2

a) 4 x (-5)   b) -8 x (-2)   c) -36 ÷ 4

Question 3

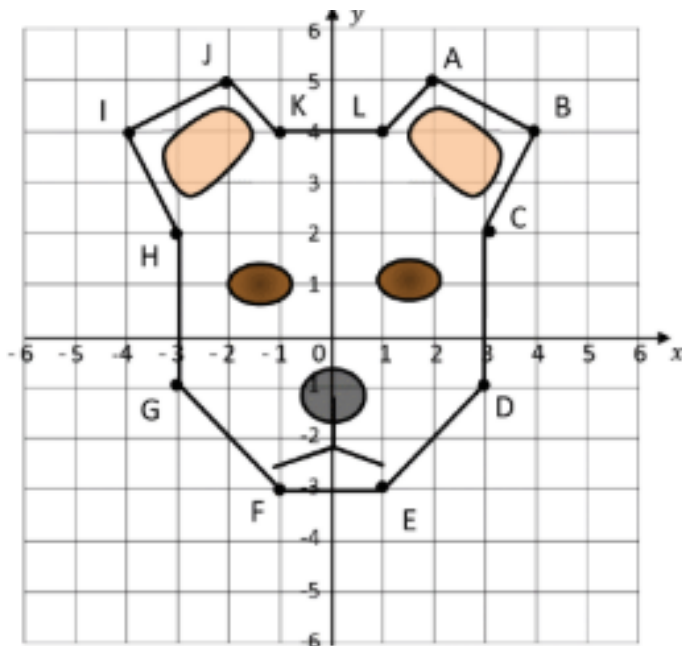a) -8 + 4 + (-2)   b) 20 + (-2) x 6   c) 15 + (-24) ÷ (-6)

Question 4

In an experiment, a scientist froze a flask of liquid from 9°C down to -25°C.
By how much had the liquid's temperature dropped ?

Name: _____

Homework – Coordinates

Question 1

1) Write down the coordinates of each point of the face.

A (,)   G (,)

B (,)   H (,)

C (,)   I (,)

D (,)   J (,)

E (,)   K (,)

F (,)   L (,)

Question 2

Using the picture above

a) State two points that have the same y-coordinate.

b) State two points that have the same x-coordinate.

c) Is the face symmetrical? Explain

Name: _____

Homework – Percentages, Fractions and Decimals

Question 1

Complete the table

Percentage	Fraction	Decimal
15%		
		0.85
	$\dfrac{77}{100}$	
		0.3

Question 2

Find:

a) 20% of £60

b) $\dfrac{3}{7}$ of 56g

c) 0.25 of 38mm

Question 3

My weight on Friday was 130 pounds.
After over-indulging at the weekend, my weight rose by 4%.
How much did I weigh on Monday morning ?

Name: _____

Homework – Algebra

Question 1

Simplify the following

a) h + h + h   b) 3p + 2p   c) 7g + 2g – 5g

Question 2

a) d x d   b) 4h x 2g   c) 16k² ÷ 2k

Question 3

Work out the value of these expressions when X = 2, Y = -3 Z = 5

a) X + Z   b) Y + 4X   c) Z² + Y

Question 4

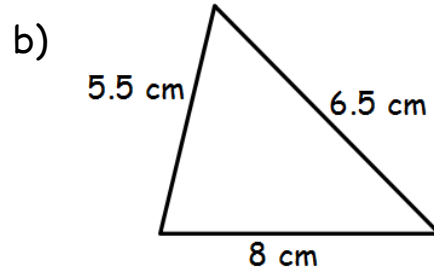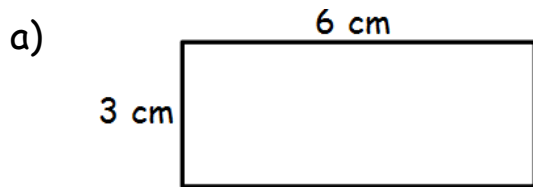Multiply out the brackets and simplify

a) 6(a + 2b)   b) 5(3a + 2) – 7
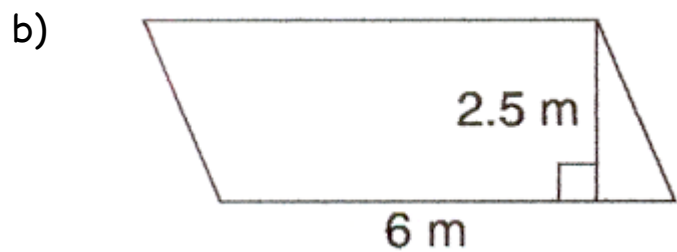
Name: _____

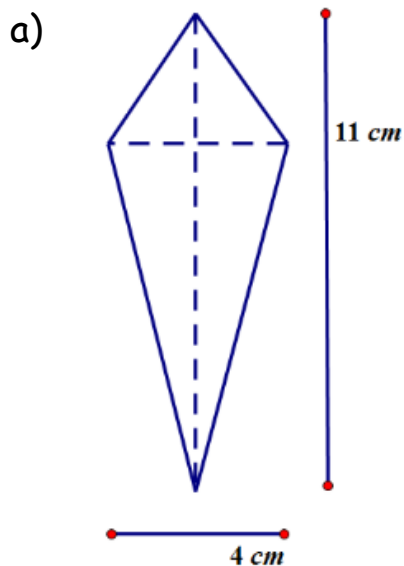Homework – Area and Perimeter

Question 1

Calculate the perimeter of the following shapes:

a)

6 cm

3 cm

b)

5.5 cm

6.5 cm

8 cm

Question 2

Calculate the area of the following shapes

a)

11 cm

4 cm

b)

2.5 m

6 m

Name: _____

Homework – Fractions

Question 1

Write down three equivalent fractions for $\frac{2}{3}$

Question 2

a) Change $\frac{12}{5}$ to mixed number.   b) Change $3\frac{4}{7}$ to improper.

Question 3

Find and simplify where possible:

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

Question 4

After a party, I was left with $3\frac{3}{4}$ cold pizzas.

Next morning my friends and I ate $1\frac{1}{2}$ of them.
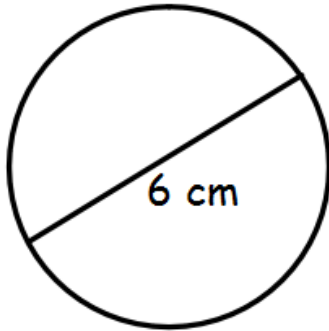
The rest, we threw out. How many were thrown out ?
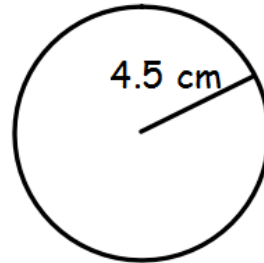
Name: _____

Homework – Circumference of a Circle

Question 1
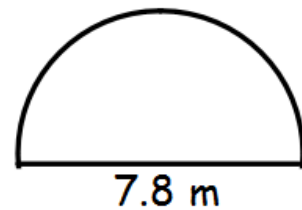Calculate the circumference of the following (remember C=πD)

a)

6 cm

b)

4.5 cm

Question 2
Zoe has a semi-circular lawn.
She decides to surround the lawn with edging slabs.
Calculate what length of edging she requires.

7.8 m

Question 3
Calculate the **diameter** of a bicycle wheel,
whose **circumference** is 94·2 centimetres.
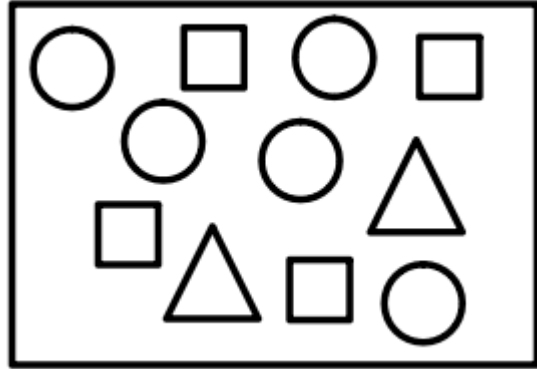
Name: _____

Homework – Ratio

Question 1

Write down the ratio simplify where possible

a) squares : circles

b) triangles : squares

c) circles : all shapes

Question 2
Simplify the following ratios:

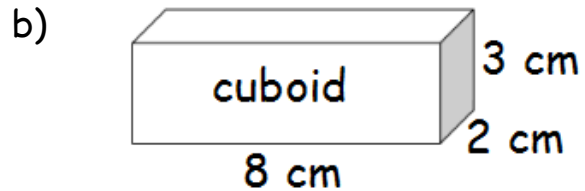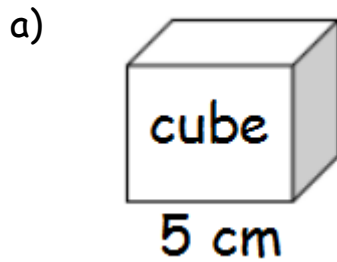a) 200 : 300   b) 120 : 60   c) 66 : 88

Question 3
The ratio of baby boys : baby girls in a maternity hospital is 4 : 5.
There are 12 baby boys. How many baby girls are there ?
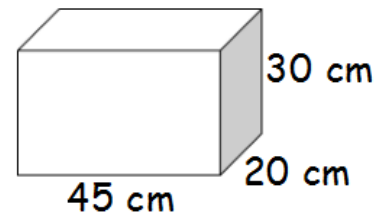
Name: _____

Homework – Volume

Question 1

Calculate the volume of the following:

a)

cube

5 cm

b)

cuboid

3 cm

2 cm

8 cm

Question 2
a) Calculate the volume of this container
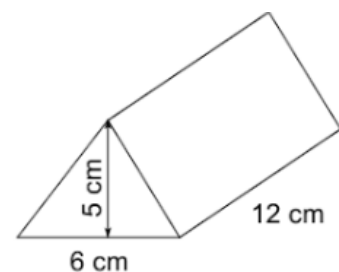
30 cm

20 cm

45 cm

b) State the capacity of the container in millilitres.

c) State the capacity of the container in litres.

Question 3
Calculate the volume of the triangular prism.

5 cm

6 cm

12 cm

Name: _____

Homework – Money

Question 1

Barry is paid a fixed salary of £1950 per month. What is his annual salary ?

Question 2

Zoe's salary is £37 800 per annum. How much is her monthly pay ?

Question 3

Jenny earns a **gross** pay of £25 318 a year as a mechanic.
Her total deductions are £2855.
What is her **net** pay ?

Question 4

Ali is a waiter and earns £12.50 an hour. Last week he worked 30 hours. How much did he earn last week?

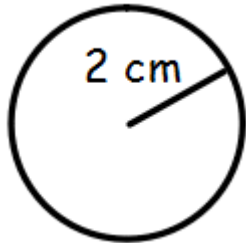He gets an overtime rate of time and a half. How much overtime pay would he get if he worked 6 hours overtime?

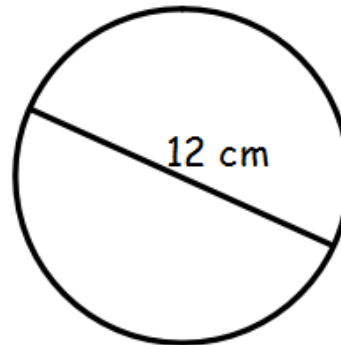Name: _____

Homework – Area of a Circle

Question 1
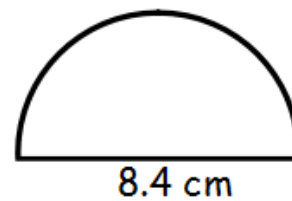
Calculate the area of these circles:

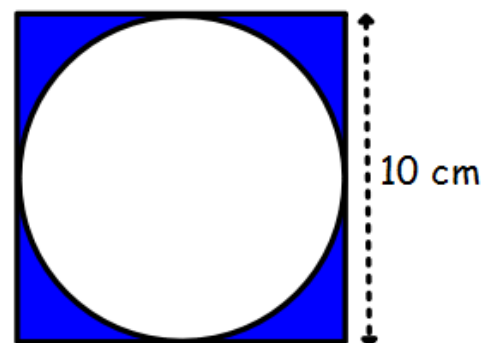a)   b)

2 cm

12 cm

Question 2

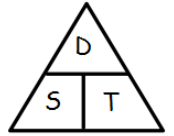Calculate the area of the semi-circle

8.4 cm

Question 3

Calculate the area of the shaded section

10 cm

Homework – Area of a Circle

Name: _____

Homework – Speed / Distance / Time

Question 1
Change the following into decimal hours:

a) 3 hours 15 minutes   b) 4 hours 24 minutes

Question 2

Calculate the **total distance** covered by a cruise ship, going at an average speed of 24 mph for 5 hours and 30 minutes.

Question 3

Calculate the **time** taken by a digger to travel 36 kilometres at an average speed of 12 km/hr.

Question 4

A train left Aberdeen Station at 11.38 am and travelled at an average speed of 94 km/hr, arriving in London at 6.50 pm.

a How long did the train journey take ?

b How far is it by rail from Aberdeen to London ?