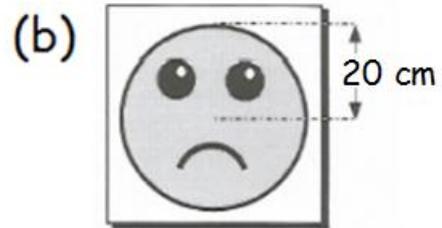


Name \_\_\_\_\_

### Homework 1 - Circles

#### Question 1

Calculate the circumference and the area of these circles:

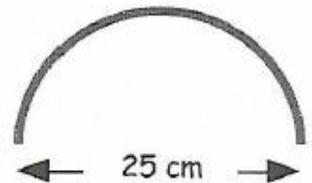


#### Question 2

Bert buys a stick of liquorice and bends it into the shape of a semi-circle.

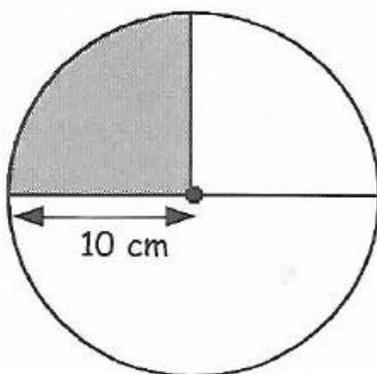
The diameter of the semi-circle is 25 centimetres.

Calculate the length of the liquorice stick.



#### Question 3

- a Calculate the area of the whole circle shown.
- b Calculate the shaded area. (*Quarter of the circle*).



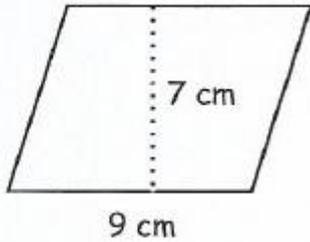
Name \_\_\_\_\_

### Homework 2 - 2D shapes

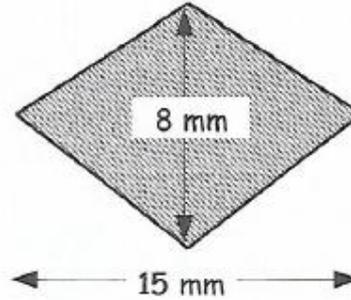
#### Question 1

Calculate the area of shapes:

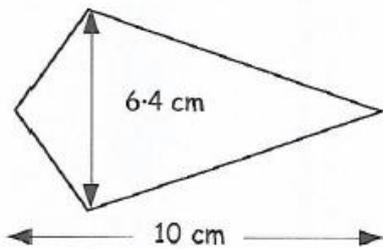
a



b

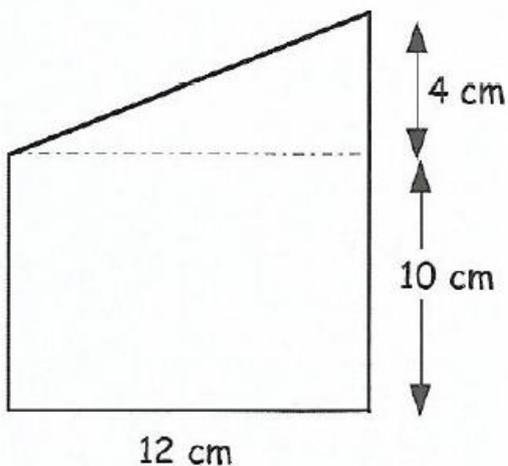


c



#### Question 2

- (a) Calculate the area of a rectangle.
- (b) Calculate the area of a triangle.
- (c) Calculate the **total** area of the shape.



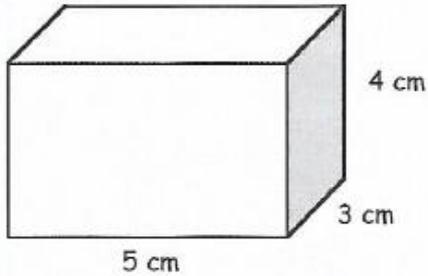
Name \_\_\_\_\_

### Homework 3 - Surface Area

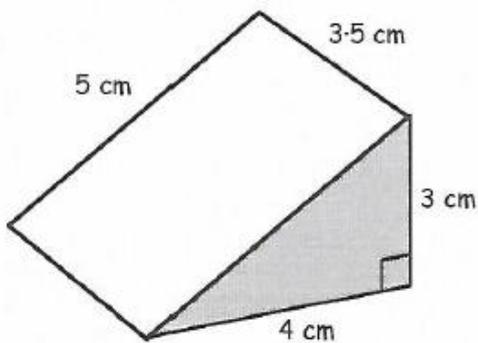
#### Question 1

Find the total Surface Area of these shapes.

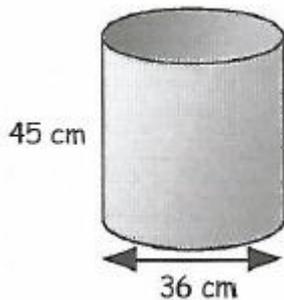
(a)



(b)



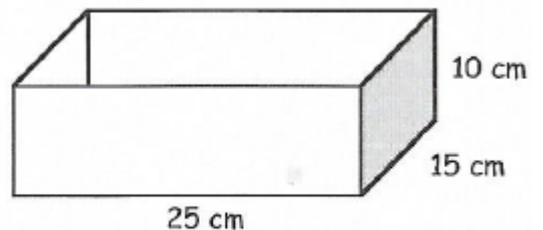
(c)



#### Question 2

A cardboard box which has no lid, has dimension 25 cm by 15 cm by 10 cm.

Find the area of card needed to make this box.



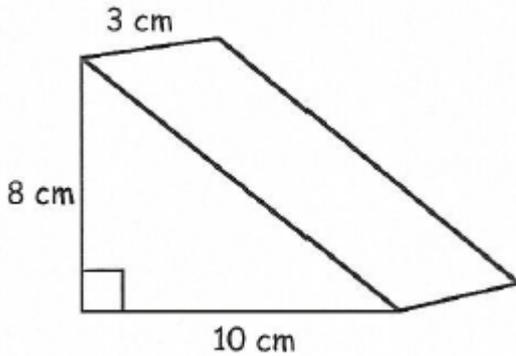
Name \_\_\_\_\_

### Homework 4 - Volume of Prisms

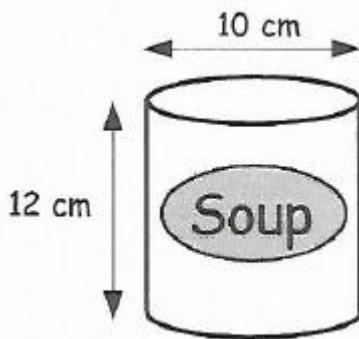
#### Question 1

Find the Volume of each Prisms.

(a)

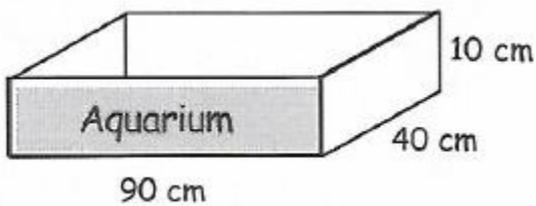


(b)



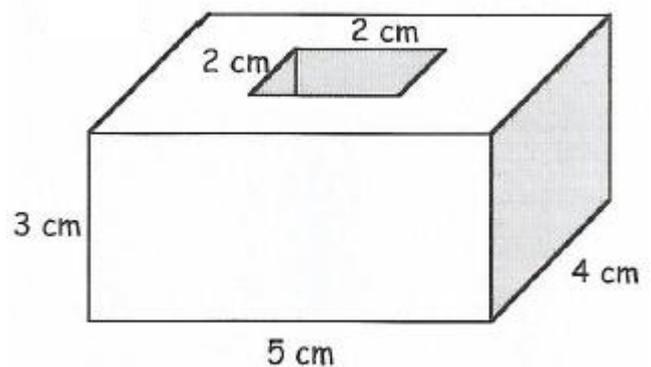
#### Question 2

Calculate the volume of a container, in litres:



#### Question 3

Calculate the volume of a shape.



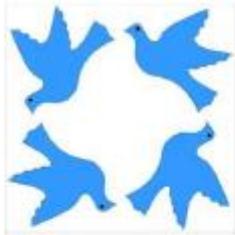
Name \_\_\_\_\_

### Homework 5 - Rotational Symmetry

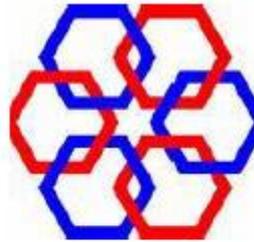
#### Question 1

Write down the order of rotational symmetry:

(a)



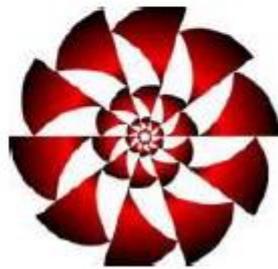
(b)



(c)



(d)

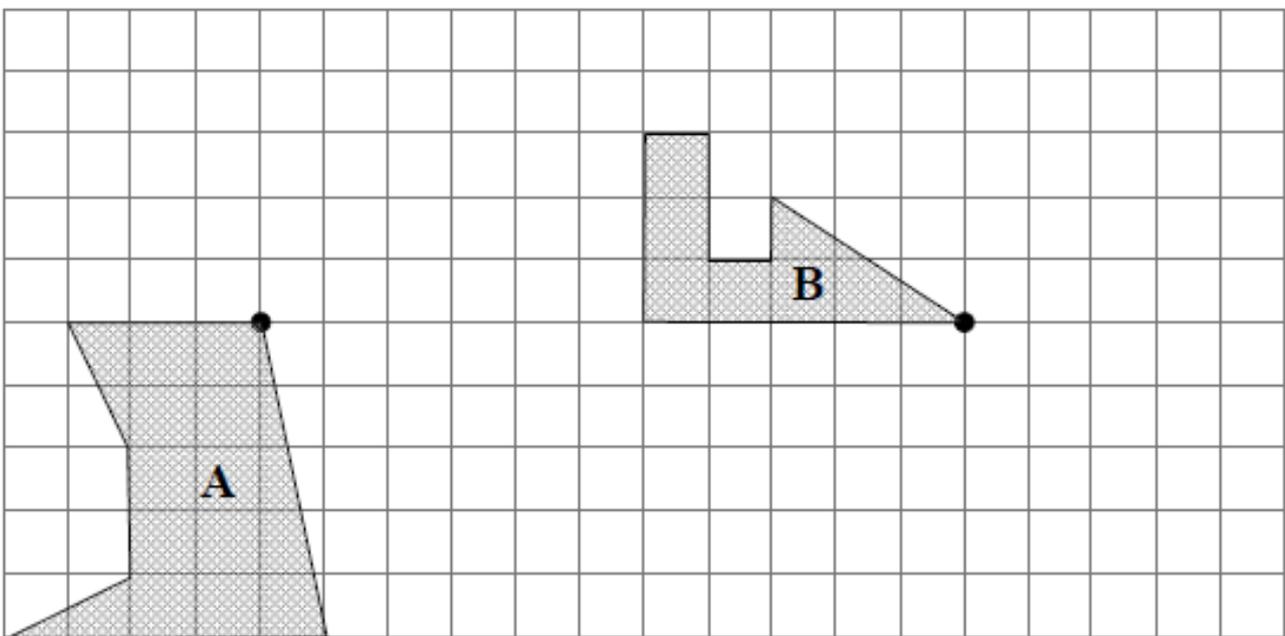


#### Question 2

Complete:

(a) Shape A so that it has half turn symmetry;

(b) Shape B so that it has turn symmetry of order 4 about the dot.



Name \_\_\_\_\_

### Homework 6 - Statistics1

#### Question 1

A sample of 25 Christmas trees was selected and the heights of them measured. The results are shown here. Measurements are in metres.

Height	Tally	Frequency
1.0 – 1.4		
2.5 –		
– 4.4		

1.3    2.4    1.5    3.3    1.1  
2.1    2.2    2.7    1.7    2.3  
1.5    2.4    1.1    4.0    2.6  
3.5    3.3    2.8    1.0    2.7  
4.1    3.2    1.9    3.8    2.7

Complete the table for the figures given.

#### Question 2

The weights, in kilograms, of 20 new-born babies are shown below.

2.8    3.4    2.8    3.1    3.0    4.0    3.5    3.8    3.9    2.9  
2.7    3.6    2.5    3.3    3.5    4.1    3.6    3.4    3.2    3.4

Find the            (a) mean            (b) median  
                          (c) mode            (d) range

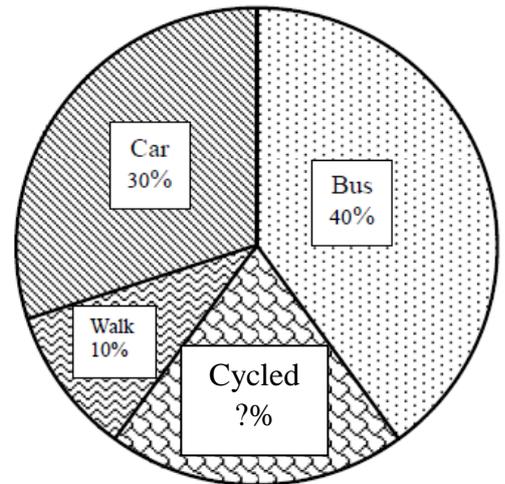
Name \_\_\_\_\_

### Homework 7 - Statistics2. Probability

#### Question 1

A class of 30 pupils was asked about how they travelled to school and this pie chart drawn.

- (a) How many
- (i) walked
  - (ii) came by bus
  - (iii) came by car
  - (iv) cycled?

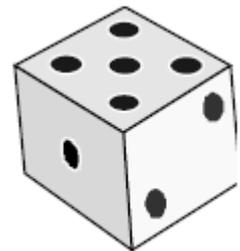


- (b) What was the least popular method of travel?

#### Question 2

A die is rolled. Find the probability that it lands showing

- (a) 1                                      (b) an odd number  
(c) a prime number                      (d) a multiple of 3



#### Question 3

Darren and his friend are playing with a pack of cards from which his maths teacher has confiscated the Ace of Spades and the King of Hearts.

What is the probability that the first card he deals is

- (a) an Ace                                      (b) a black card  
(c) a Queen                                      (d) the 4 of clubs?