CITY OF LONDON
FREEMEN'S SCHOOL

SAMPLE ENTRANCE
EXAMINATION PAPER

For pupils currently in Year 7

MATHEMATICS

- The test is one hour long.
- No calculators to be used.
- Show all working beside the relevant question.
- Write in ink, draw diagrams when necessary in pencil.
- Do not write in the right hand margin.

RMH	**S0908**	✓	MAT

1. Calculate:

a) 1.5 x 785 (1)

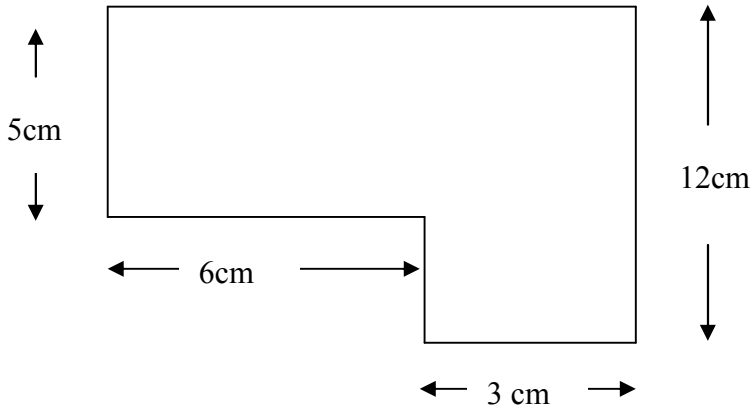
b) 1710 ÷ 15 (1)

c) 5^2 – (8 – 2 x 3) (2)

d) – 5 + 12 (1)

e) 18 – 26 (1)

2. Find the area and perimeter of the shape below:



Perimeter = (2)

Area = (2)

3. In a bag there are 5 blue counter, six yellow counters, two white counters and three red counters.

I take one counter form the bag without looking

What is the probability that it is

a) yellow? (1)

b) red or blue? (1)

c) black ? (1)

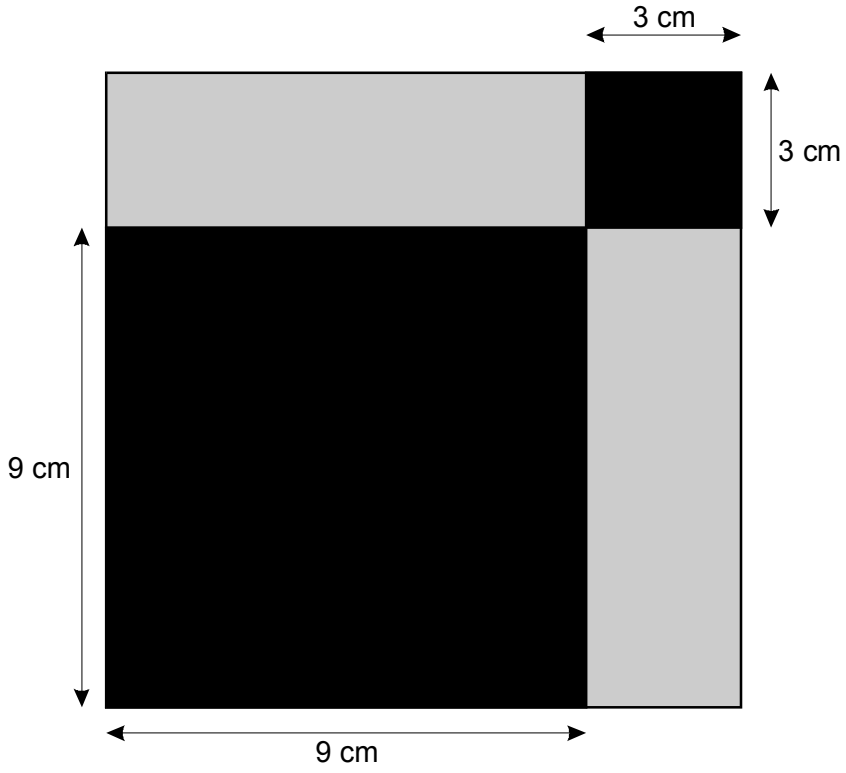
4. a) $\frac{2}{3} - \frac{1}{2}$ (2)

b) $3\frac{2}{5} + 1\frac{1}{6}$ (2)

c) $\frac{4}{7} \times 1\frac{4}{5}$ (2)

d) $\frac{6}{11} \div \frac{2}{3}$ (2)

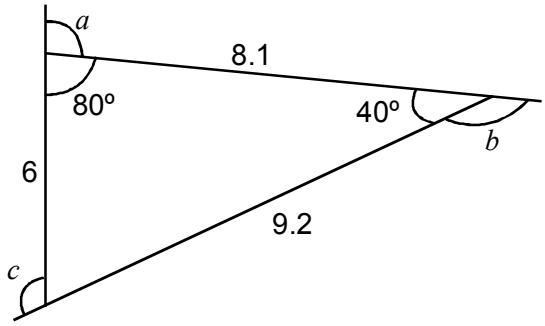
5. Two parts of this square design are shaded black.
Two parts are shaded grey.



Show that the ratio of black to grey is **5 : 3** (3)

6. Sharon is drawing shapes on her computer.

(a) She wants to draw this triangle. She needs to know angles *a, b* and *c*.



NOT TO SCALE

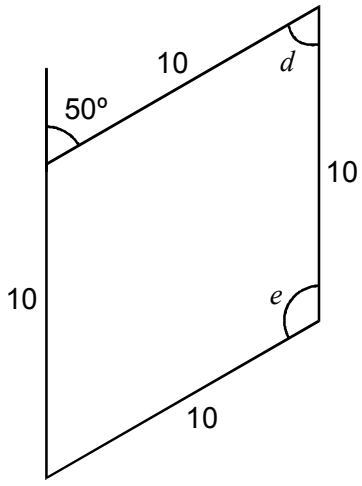
Calculate angles *a*, *b* and *c.*

a = ... º (1)

b = ... º (1)

c = ... º (1)

(b) Sharon draws a rhombus:



NOT TO SCALE

Calculate angles *d* and *e*.

d = ... º (1)

e = ... º (1)

7. Convert the following into the units shown

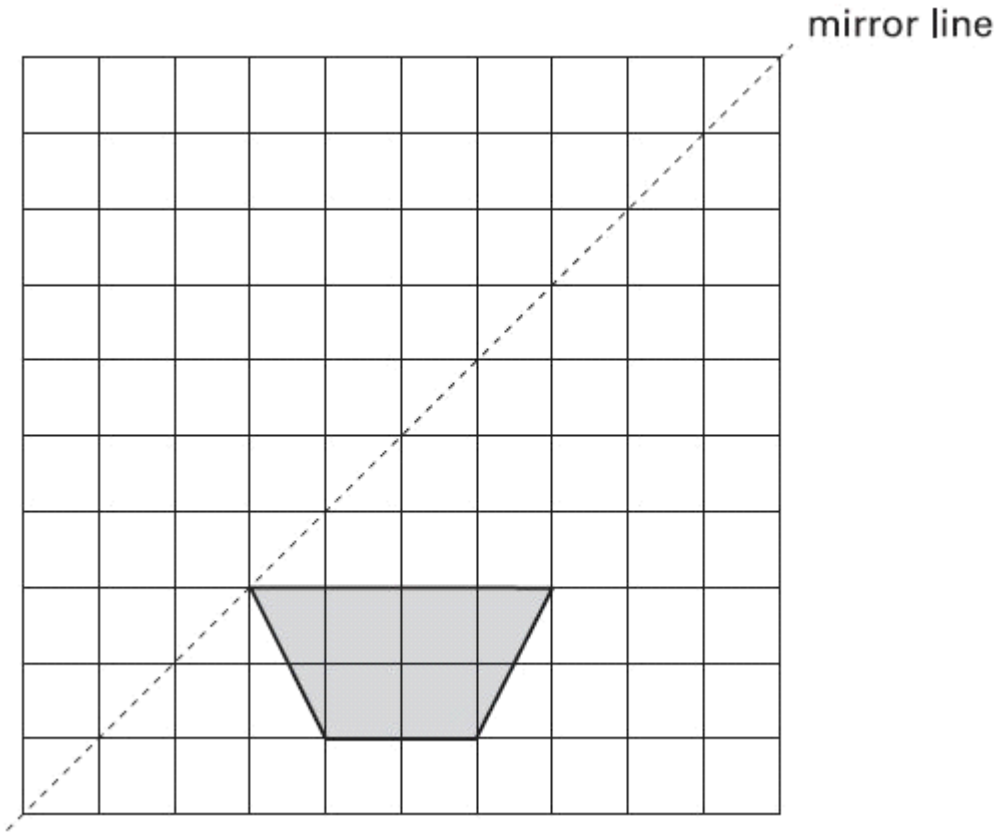
a) 2 km = _____m (1)

b) 150 cm = _____mm (1)

c) 1.2kg = _____g (1)

d) 2.5 m =_____mm (2)

8. Draw the reflection of this shape.



(2)

9. Solve the following equation

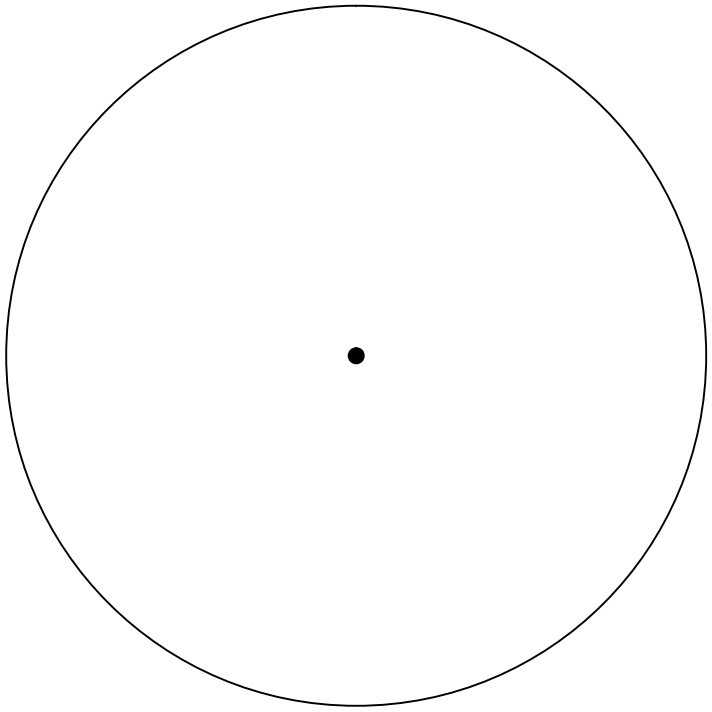
5 + 2x = 15 (2)

10. Continue the following sequence

1 4 9 16 ____ _____ _____ (3)

11. Draw a pie chart to show the following information:

Favourite Colour	Number of people
Red	4
Blue	6
Yellow	5
Green	3



(4)

End of test