

Test 3**Essential Maths 8S Assessment Test 3**

You need: Ruler, Protractor, Pencil

Calculators may be used

1. (a) Work out $\frac{3}{7} + \frac{1}{7}$ (1 Mark)

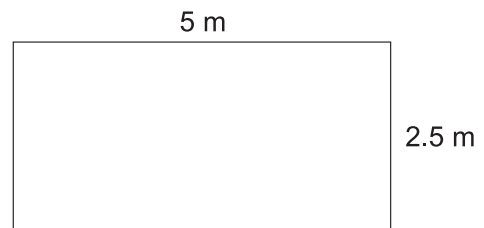
(b) Copy and complete this calculation.

$$\frac{1}{2} + \frac{1}{5}$$

$$= \frac{\square}{10} + \frac{\square}{10} = \frac{\square}{\square}$$

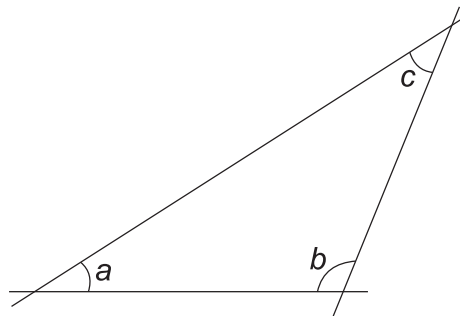
(2 Marks)

2. The diagram shows a rectangular carpet.
The carpet costs £22 per square metre.
Find the cost of the carpet. (2 Marks)



3. A box of 44 packets of cereal weighs 19.8 kg.
How much does each packet of cereal weigh in grams? (2 Marks)

4. Measure the angles of this triangle. (2 Marks)



5. Solve the equations to find the value of n

(a) $2n + 3 = 17$ (1 Mark)

(b) $3n + 1 = n + 13$ (2 Marks)

6. On Monday an optician saw 32 people altogether.

14 of the 32 people were male.

5 of the 14 males were children.

The optician saw 11 female adults.

Copy the table and fill it in to show this information.

	Male	Female
Adult		
Child		

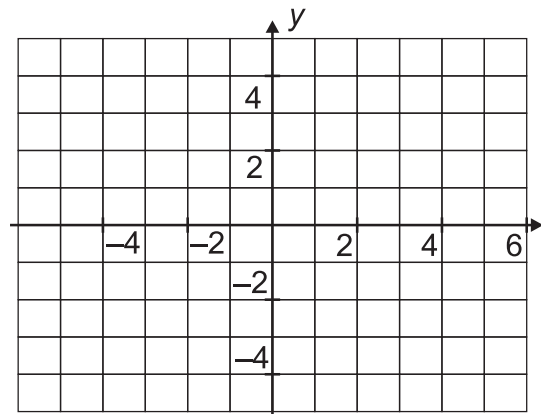
(2 Marks)

7. On squared paper draw axes like those shown here.

(a) Plot and label the points A $(-3, 1)$
B $(1, 3)$ C $(5, 1)$ D $(3, -1)$ (2 Marks)

(b) When point E is marked shape ABDE is a square. Mark point E on your diagram (1 Mark)

(c) Mark point F so that ABCF is a parallelogram. (1 Mark)



8. The latest James Bond DVDs costs £7.95 each.

How many of these DVDs can you buy with £50?

(1 Mark)

9. Work out

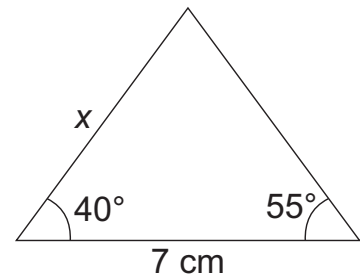
(a) $-6 + 4$ (1 Mark)

(b) $-3 - 3$ (1 Mark)

(c) $1 - 100$ (1 Mark)

10. (a) Use a ruler and protractor to draw the triangle shown. (2 Marks)

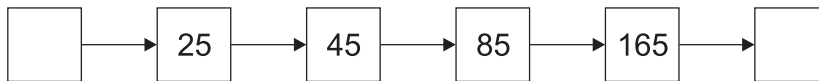
- (b) Measure and write down the length of the side marked x . (1 Mark)



11. The rule to get the next number in this number chain is

double, then subtract 5

Copy the diagram below and fill in the **two** missing numbers.



(2 Marks)

12. The tickets for a raffle are numbered **1** to **30**.

One ticket is chosen at random.

- (a) David says: 'It is more likely that the ticket number will have 2 digits than 1 digit'.

Is he correct?

Explain your answer

(2 Marks)

- (b) Gary says: 'The ticket number is more likely to be an even number than an odd number'.

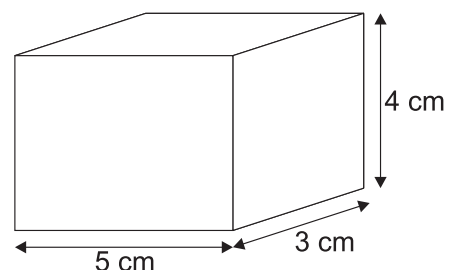
Is Gary correct?

Explain your answer

(2 Marks)

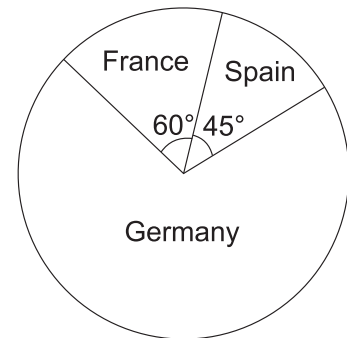
13. (a) Work out the total **surface area** of the cuboid shown. (3 Marks)

- (b) How many **vertices** does the cuboid have? (1 Mark)



14. The pie chart shows the number of people from three countries staying at an hotel. There were 480 people altogether from the three countries.

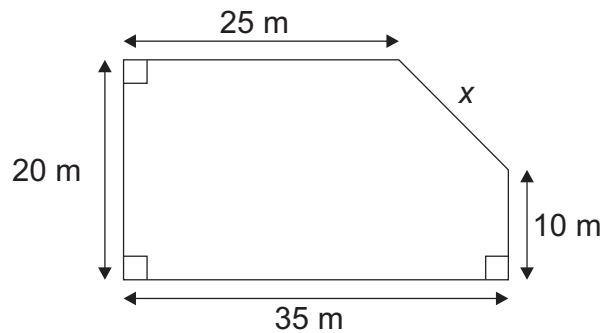
- (a) How many people from France were there?
(1 Mark)
- (b) How many people from Germany were there?
(2 Marks)



15. A van costs £5.50 to hire for one hour.

How much will it cost to hire this van from 9.15 until 10.45? (2 marks)

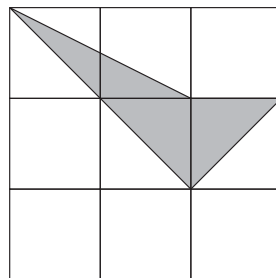
16. (a) Draw an accurate scale drawing of the shape below using a scale of 1 cm for every 5 m. (2 Marks)



- (b) Measure and write down the length of the side marked x on your scale drawing. (1 Mark)

17. Copy the shape on squared paper.

Draw an enlargement of the shape with a scale factor 2. (1 Mark)



18. Find the value of each expression when $d = 3$

$$e = 4$$

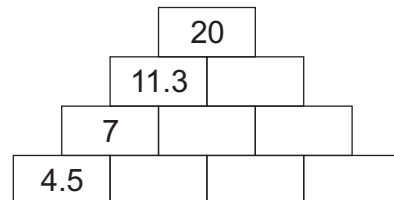
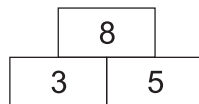
$$f = -2$$

(a) $d + e + f$ (1 Mark)

(b) $d^2 - e$ (1 Mark)

19. In this number wall each brick is made by adding the two bricks underneath it.

For example



Copy and complete the wall. (3 Marks)

20. In five different shops the cost of a certain book is

£11, £12.50, £10, £9.50, £11.

Work out the **mean average** price of the book. (2 Marks)