

Test 3

Essential Maths 7S Year end

Calculators may be used

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1. Use a calculator to work out the following:

(a) $6.25 - 3.191$ (1 Mark)

(b) $£6.35 + 89p$ (1 Mark)

(c) $(189 + 215) \times (4.7 + 1.2)$ (2 Marks)

2. Find the value of n if

$$3n + 5 = 17$$
 (1 Mark)

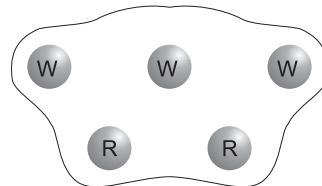
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3. $2\frac{1}{4}$ is equal to $\frac{9}{4}$ $\frac{9}{4}$ is an *improper fraction*

Change $2\frac{2}{3}$ to an improper fraction. (1 Mark)

4. A bag contains 3 white balls and 2 red balls

One ball is selected at random.

What is the probability of selecting a red ball?



(1 Mark)

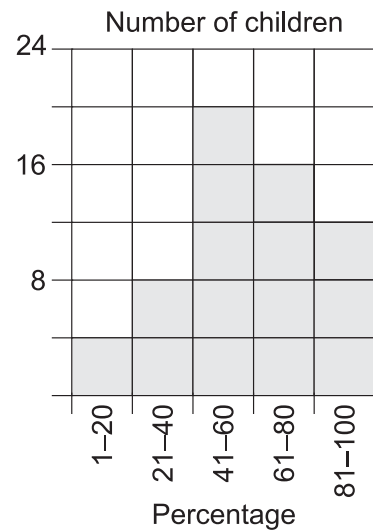
5. a) $£1 = 1.18$ euros

How much is £20 in euros? (1 Mark)

- b) $\frac{3}{8}$ is 0.375 as a decimal.

What is $\frac{11}{8}$ as a decimal? (1 Mark)

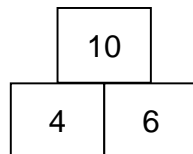
6. The bar chart shows the percentage marks achieved by children in a test.



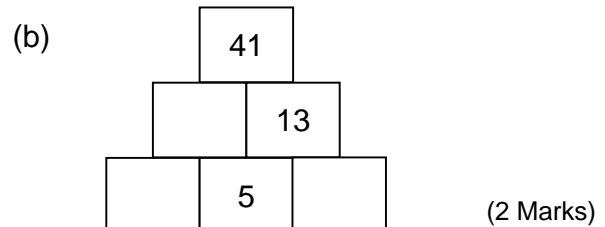
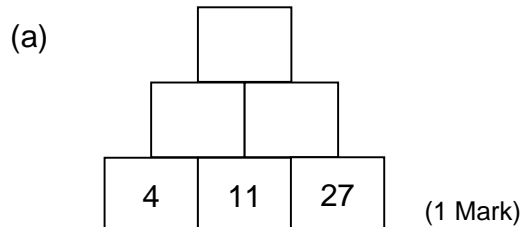
- (a) How many children scored below 61%? (1 Mark)
 (b) How many children scored between 41% and 80%? (1 Mark)
 (c) How many children took the test? (1 Mark)
 (d) What proportion of the children scored over 80%? Give your answer as a percentage. (1 Mark)

7. In this diagram the number in each box is found by adding the numbers in the two boxes underneath.

For example:



Copy each diagram and fill in the missing numbers.



8. Cinema tickets cost £4.50 each. How many tickets can you buy with £28? (1 Mark)

9. On squared paper draw a graph like the one here.

- (a) Plot the points A(1, 2)
B(3,1) C(4,3) D(2, 4).

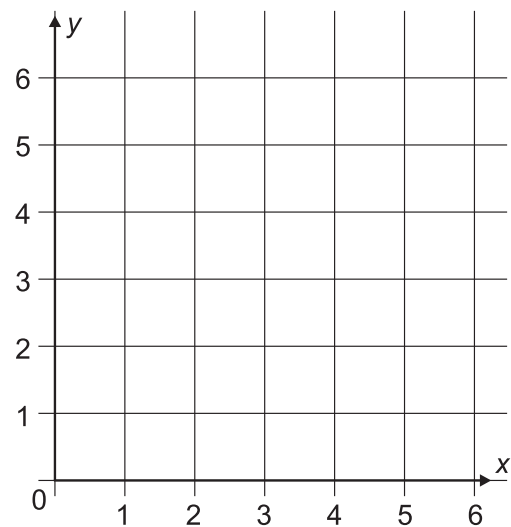
What is the name of
shape ABCD?

(2 Marks)

- (b) Plot the points D(2, 4)
E(3, 5) F(5, 4) G(6, 5).

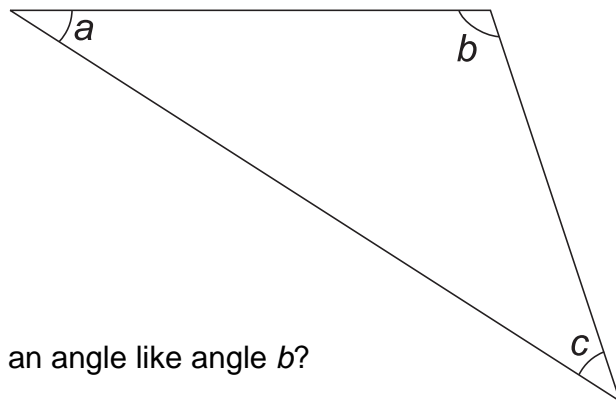
What is the name of
shape DEGF?

(2 Marks)



10. (a) Measure the angles of this triangle.

(3 Marks)



- (b) What is the name of an angle like angle b ?

(1 Mark)

11. There are 15 players in a rugby team and there are 207 boys in a school.

- (a) How many teams of 15 can be formed?

(2 Marks)

- (b) How many boys will be left over?

(1 Mark)

12. On one day a dentist saw 25 people altogether

14 of the 25 people were female.

8 of the 14 females were adults.

The dentist saw 4 male children.

	Male	Female
Adult		
Child		

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

(2 Marks)

13. Copy and complete these calculations.

(a)

$$\begin{array}{r} \square \\ + \quad 5 \quad \square \quad 6 \quad \square \\ \hline 8 \quad 2 \quad 8 \end{array}$$

(2 Marks)

(b)

$$\begin{array}{r} \square \quad \square \quad \square \\ \times 5 \\ \hline 6 \quad 7 \quad 0 \end{array}$$

(2 Marks)

14. (a) Work out $\frac{2}{5}$ of £65

(1 Mark)

(b) Work out $\frac{4}{7}$ of £43.40

(2 Marks)

15. Here are four number cards

1

3

7

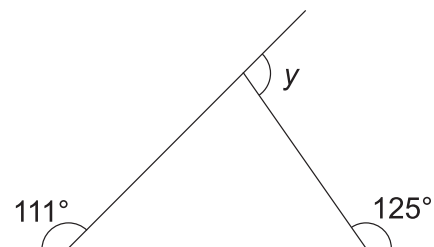
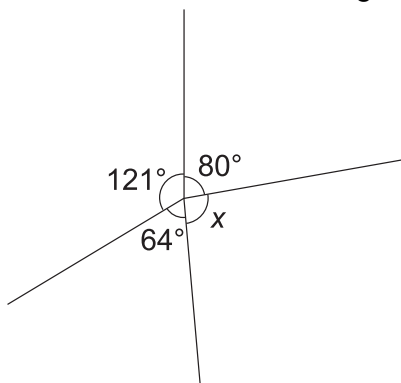
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Use the four number cards to make the answer to this calculation as large as possible.

(1 Mark)

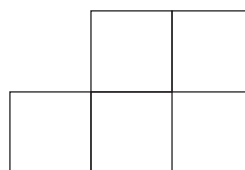
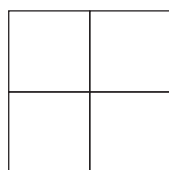
$$\begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array} + \begin{array}{|c|c|} \hline \square & \square \\ \hline \end{array}$$

16. Work out the size of angle x and angle y



(3 Marks)

17. (a) Write down the order of rotational symmetry of each shape made from centimetre squares.



(2 Marks)

(b) Write down the perimeter of each shape.

(2 Marks)

18. The ages of 10 people in a shop are, in years,

35 20 30 15 8 18 11 45 7 27

(a) Find the **median** age of these people. (1 Mark)

(b) Find the **mean** age of these people. (2 Marks)

(c) Find the **mean** age of the people in the shop after the oldest person leaves. (2 Marks)

19. This graph is used to convert pounds to euros.

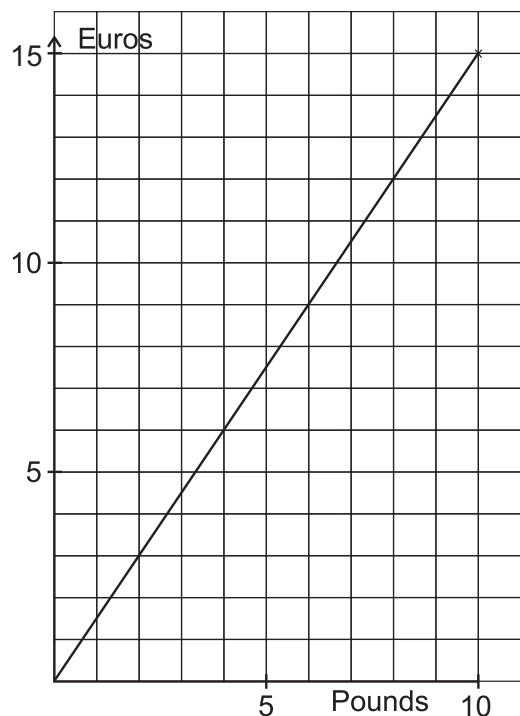
(a) How many euros do you get for £6? (1 Mark)

(b) How many pounds do you get for 12 euros? (1 Mark)

(c) A gallon of petrol costs £5 in England or 9 euros in France.

In which country is the petrol cheaper? (1 Mark)

Show your working.



20. (a) Draw a sketch of a **pyramid** with a square base. (1 Mark)

(b) Draw a possible *net* you could use to make the pyramid. (1 Mark)