

**Test 2****Essential Maths 8S Unit 3 and 4**

Calculator not allowed

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1. Copy each sequence and write the next three terms.

(a) 1.6, 1.7, 1.8, , ,  (2 Marks)

(b) 0.7, 0.75, 0.8, , ,  (2 Marks)

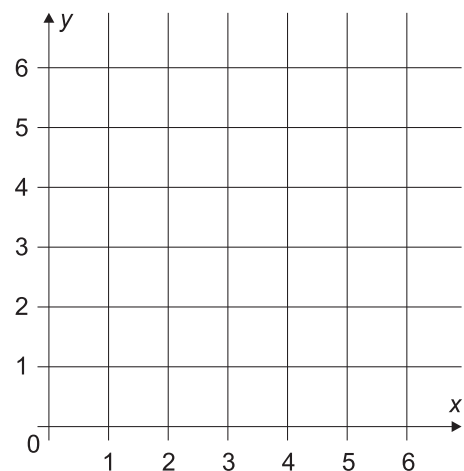
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2. On squared paper draw a graph like the one here.

(a) Draw and label the line  $y = 5$  (1 Mark)

(b) Draw and label the line  $x = 2$  (1 Mark)

(c) Write down the coordinates of the point where the two lines meet. (1 Mark)



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3. (a) Round the number 841 to the nearest 10 (1 Mark)

(b) Round the number 268 to the nearest 100 (1 Mark)

(c) Round the number 17.45 to the nearest whole number. (1 Mark)

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4. Copy and complete each calculation by writing the missing numbers.

(a)  $2.8 \times 100 = \square$  (1 Mark)

(b)  $35 \div 10 = \square$  (1 Mark)

(c)  $\square \times 10 = 6.4$  (1 Mark)

(d)  $\square \div 100 = 0.03$  (1 Mark)

5. Gary buys a CD for £9.55 and book for £2.99

How much money will Gary have left from £20?  
Show your working.

(2 Marks)

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6. Work out

(a)  $855 \div 9$

(1 Mark)

(b)  $65.34 \div 3$

(1 Mark)

(c)  $52.9 - 24.74$

(1 Mark)

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7. This graph is used to convert pounds to dollars

(a) How many dollars do you get for £6?

(1 Mark)

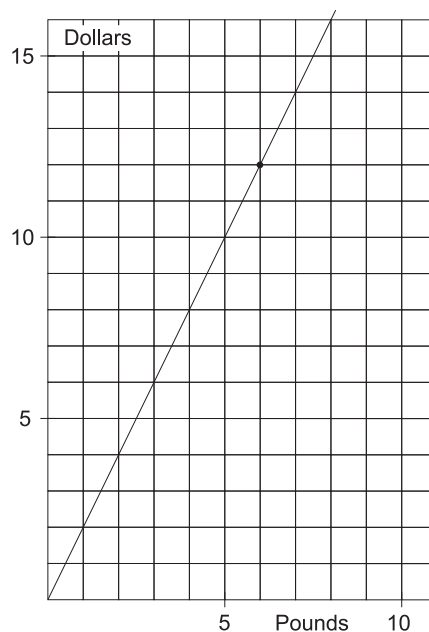
(b) How many pounds do you get for 4 dollars?

(1 Mark)

(c) A computer costs \$1200 in the U.S. A

How much is that in pounds?

(2 Marks)



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8. A pizza costs £3.95

*Roughly* how much will 12 pizzas cost?

(Your answer has to be close but *not* exact)

(1 Mark)

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9. Write the numbers below as decimals.

(a)  $\frac{3}{10}$

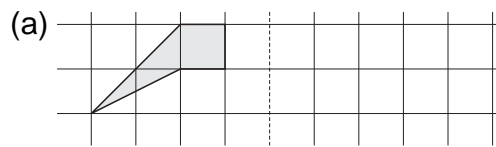
(b) 48%

(c)  $\frac{7}{100}$

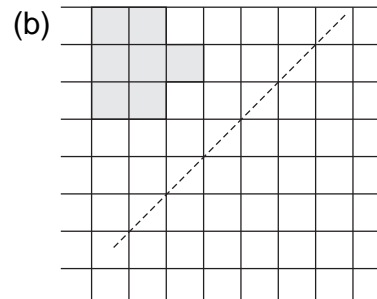
(3 Marks)

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10. Copy each shape below on squared paper and then draw the image of each shape after reflection in the broken line.



(1 mark)



(2 Marks)

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11. Solve the equations to find the value of  $n$ .

(a)  $n - 9 = 8$

(1 Mark)

(b)  $2n + 3 = 17$

(1 Mark)

(c)  $22 = 3n - 2$

(1 Mark)

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12. Find the value of each expression when  $x = 5$

$y = 2$

$z = -2$

(a)  $3x + y$

(1 Mark)

(b)  $x - z$

(1 Mark)

(c)  $2x - y + z$

(1 Mark)

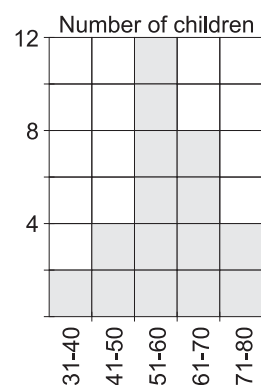
13. The ages of five people in a family are

34 12 3 31 5

Find the following:

- (a) The *mean* age of the five people. (2 Marks)
- (b) The *median* age of the five people. (1 Mark)
- (c) The *range* of the ages. (1 Mark)

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



- (a) How many children took the test? (1 Mark)
- (b) How many children scored between 31% and 40%? (1 Mark)
- (c) What *fraction* of the children scored between 51% and 70%? (2 Marks)

15. The weights of the apples taken from a tree are shown below.

32	51	22	30	63	55	42	32
27	36	40	53	28	43	37	45
56	29	58	38	49	67	26	39

Stem	Leaf
2	
3	
4	
5	
6	

- (a) Draw a stem and leaf diagram for these weights. (2 Marks)
- (b) Write down the *range* of the weights of the apples. (1 Mark)

16. In these sequences the numbers go up in equal steps.

Copy each sequence and fill in the missing numbers.

- (a) 

2	8	14	20		
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 (1 Mark)
- (b) 

		1	1.1	1.2	
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 (2 Marks)
- (c) 

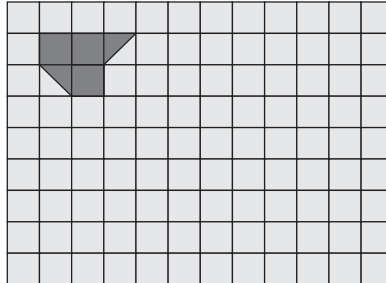
		15			36
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 (2 Marks)

17. Copy the shape below onto squared paper.

Enlarge the shape by a scale factor 3.

(2 Marks)



18.  $m$  and  $n$  are two numbers.

We know that

$$\boxed{m + n = 11} \quad \boxed{m > n} \quad \boxed{m < 5}$$

What values could  $m$  and  $n$  be?

Write down three pairs.

Write  $m = \dots$ ,  $n = \dots$  or  $m = \dots$ ,  $n = \dots$  or  $m = \dots$ ,  $n = \dots$

(2 Marks)

19. The shaded column shows the total of each row.

For example  $a + a + a = 21$

$a$	$a$	$a$	21
$a$	$b$	$b$	25
$a$	$b$	$c$	40

Work out the values of  $a$ ,  $b$  and  $c$ .

(3 Marks)

20. (a) The shaded triangle is rotated  $90^\circ$  in a clockwise direction about the point A.

Write down the coordinates of the point where B is rotated to.

(2 Marks)

- (b) The shaded triangle is rotated  $90^\circ$  in an anticlockwise direction about the point B.

Write down the coordinates of the point where A is rotated to.

(2 Marks)

