

## Test 2

## Essential Maths Book 7S Units 3 & 4

You will need a ruler and a protractor

No Calculators

1. The number 772 is 800 rounded to the **nearest hundred**.  
Round the following numbers to the **nearest hundred**:

(a) 392

(b) 429

(2 Marks)

2. Work out the following.

(a)  $6 + 2 \times 3$

(1 Mark)

(b)  $3 \times (2 + 5)$

(1 Mark)

3. A turkey must be cooked for 40 minutes for every kilogram.  
How long do you need to cook a turkey that weighs

(a) 3 kg

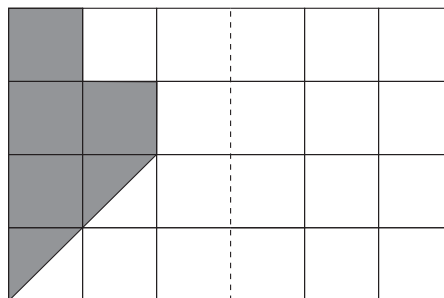
(1 Mark)

(b) 5 kg?

(1 Mark)

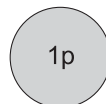
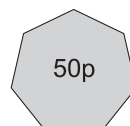
Give your answers in hours and minutes.

4. Copy the diagram on squared paper.  
Draw the reflection of the shaded shape in the mirror line.  
(The mirror line is the broken line.)



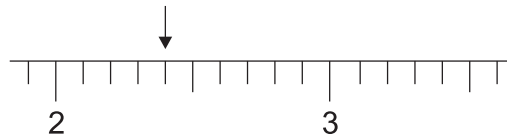
(2 Marks)

5. You have the following coins:  
Which of these coins make exactly £1.10?



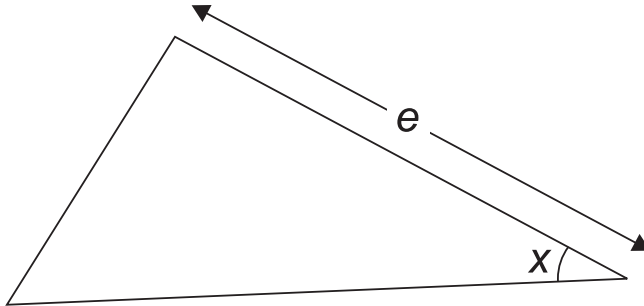
(2 Marks)

6. Look at the number line.  
What number is the arrow pointing to?



(1 Mark)

7.



(a) Measure accurately length  $e$

(1 Mark)

(b) Measure accurately angle  $X$

(1 Mark)

8. A pen weighs 26 grams.  
Work out the total weight of 45 pens.

(2 Marks)

9. Write each statement and fill in the missing numbers.

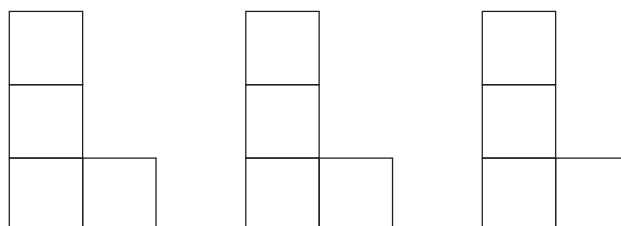
(a)  $1 = \frac{\boxed{\phantom{00}}}{\boxed{4}}$

(1 Mark)

(b)  $\frac{1}{2} = \frac{\boxed{\phantom{00}}}{\boxed{6}}$

(1 Mark)

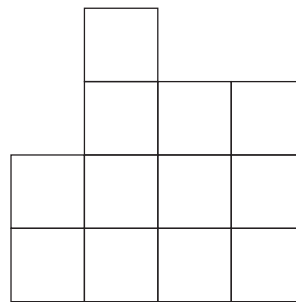
10. Here are three L-shapes drawn on centimetre square grids.



- (a) The three L-shapes can be fitted together to make shape P

Draw a copy of shape P and show the three L-shapes on your diagram.

- (b) What is the **total area** of shape P?

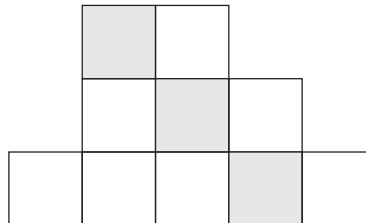


Shape P

(1 Mark)

(1 Mark)

11. (a) Look at the shape on the right. What percentage of the shape is shaded?

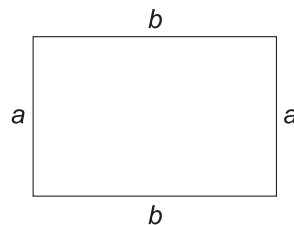


(1 Mark)

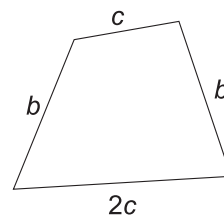
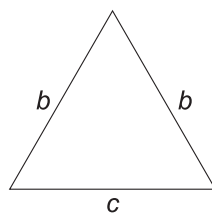
- (b) Work out 20% of £250

(1 Mark)

12. The perimeter of this shape is  $2a + 2b$ .



Find the perimeter of these two shapes, using the letters  $a$ ,  $b$ ,  $c$



(2 Marks)

13. Work out the following. You must show your working.

(a)  $5.3 \times 7$

(1 Mark)

(b)  $46.92 \div 6$

(1 Mark)

(c)  $(10 - 3.24) \times 5$

(2 Marks)

14. In these sequences the numbers go up in equal steps.  
Copy each sequence and fill in the missing numbers.

(a) 

-2
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3
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8
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13
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(1 Mark)

(b) 

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1
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5
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9
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(2 Marks)

(c) 

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8
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23
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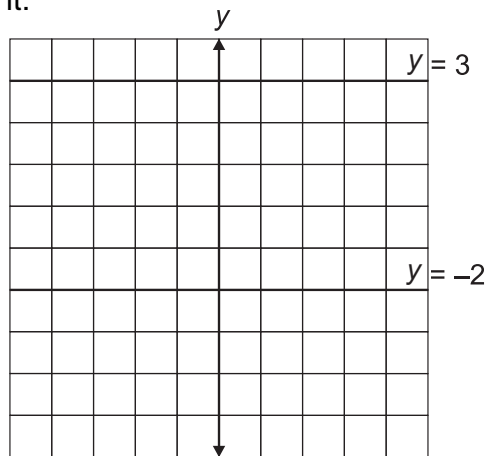
(2 Marks)

15. The grid shows the y-axis and the lines  $y = 3$  and  $y = -2$ .  
Draw your own grid and draw on it:

(a) the x-axis (1 mark)

(b) the line  $x = 2$  (1 mark)

(c) the line  $y = x$  (2 Marks)



16.  $a$  and  $b$  are two numbers.  
We know that

$a + b = 9$
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$a > b$
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$b < 4$
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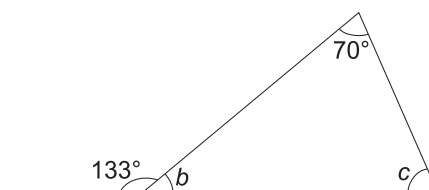
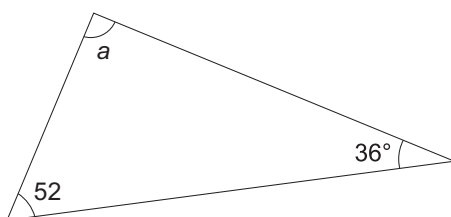
What values could  $a$  and  $b$  be?

Write two pairs.

(2 Marks)

Write  $a = \dots\dots\dots$ ,  $b = \dots\dots\dots$  or  $a = \dots\dots\dots$ ,  $b = \dots\dots\dots$

17. Calculate the angles marked by letters in these shapes.



(3 Marks)

18. Write each statement and write a number in each box.

(a)  $8.2 - \square = 1.8$  (1 Mark)

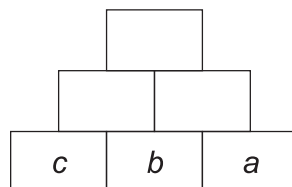
(b)  $\square \div 10 = 0.32$  (1 Mark)

(c)  $4.8 < \square < 4.9$  (1 Mark)

(d)  $\left[ \frac{\square \times 10}{3} \right] - 1 = 50$  (2 Marks)

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19. Copy this diagram.

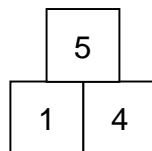


$a = 5$ ,  $b = 8$  and  $c = 11$

Fill in each empty box by adding the numbers on the two lower bricks and writing the answer in the brick above.

(3 Marks)

For example:



20. (a) Look at the equation  $m + n = 12$

Write down three different solutions to the equation.

(3 Marks)

Write  $m = \dots\dots$ ,  $n = \dots\dots$  for each solution.

(b) Now look at equation  $mn = 35$

What values of  $m$  and  $n$  are solutions to both  $m + n = 12$  and  $mn = 35$ ?

(1 Mark)