

Test 2

Essential Maths 9S Units 3 & 4

No Calculators

1. Copy and complete

$$5\text{m} = \boxed{} \text{ cm}$$

$$600\text{g} = \boxed{} \text{ kg}$$

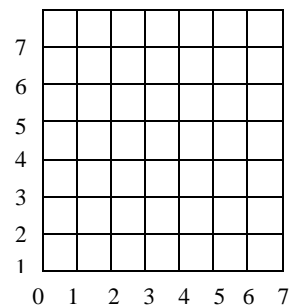
$$63\text{mm} = \boxed{} \text{ cm} \quad (3 \text{ marks})$$

2. How many 200ml containers of milk can be filled from a 4 litre bottle? (3 marks)

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

(a) Plot and label the points $A(1,2)$, $B(2,6)$ and $C(6,2)$ and draw the triangle ABC (2 marks)

(b) Write down the coordinates of the mid points of
(i) BC (1 mark)
(ii) AB (1 mark)



4. Copy and complete the table

Time in words	12-hour clock	24-hour clock
Two o'clock		14:00
	5:30 pm	
		23:00
	10:30 am	

(4 marks)

5. Round off these numbers to one decimal place

(a) 7.34 (1 mark)

(b) 18.752 (1 mark)

(c) 0.6513 (1 mark)

6. Thirty-three people each bought a plant costing £25.

How much did they pay altogether? (2 marks)

7. Copy the sequence and fill in the missing numbers

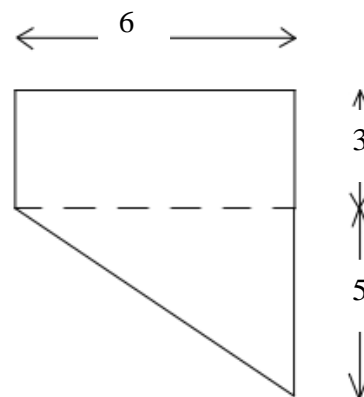
5, 3, 1, , , -5 (2 marks)

8. Copy and complete each sentence by choosing the best estimate

(a) A door is about (3 feet, 6 feet, 10 feet) tall. (1 mark)

(b) An average adult man is about (1.7m, 2.3m, 2.4m) tall. (1 mark)

9. Find the total area of the shape shown.
All lengths are in metres.



(3 marks)

10. A book was sold at £6.90 per copy. Estimate the total cost of 52 books.

(Show your working)

(2 marks)

11. A prize of £126.50 is shared equally between five people.

How much does each person receive?

(2 marks)

12. Copy and Complete

(a) $-4 + 7 = \square$

(1 mark)

(b) $\square - 5 = -2$

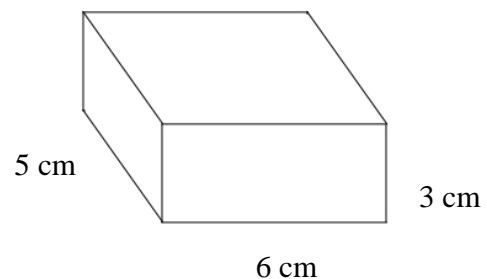
(1 mark)

(c) $6 + \square = -3$

(1 mark)

13. Find the total surface area of this solid cuboid.

(3 marks)

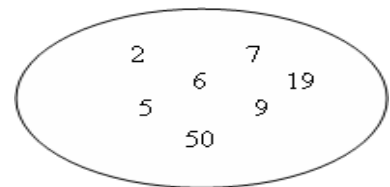


14. Look at the numbers in the loop

(a) Write down the numbers which are factors of 10
(1 mark)

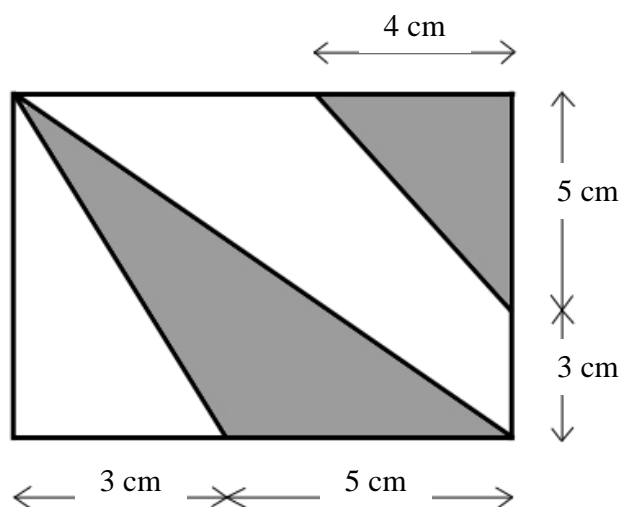
(b) Write down the prime numbers.
(2 marks)

(c) Write down the square number.
(1 mark)



15. Find the total shaded area in this shape.

(3 marks)



16. Ten balls numbered 2, 3, 5, 5, 8, 8, 9, 11, 15, 19 are placed in a bag.

One ball is selected at random. Find the probability that it is

(a) a 9 (1 mark)

(b) an 8 (1 mark)

(c) a number less than 7 (1 mark)

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17. I am thinking of two numbers

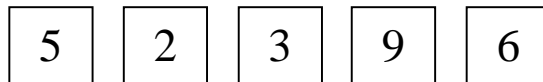
When I add the numbers the answer is 2

When I multiply the numbers the answer is -24

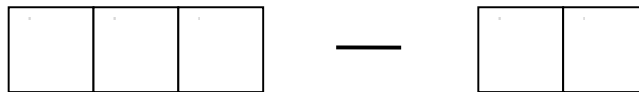
What are the two numbers?

(2 marks)

-
18. Here are five number cards

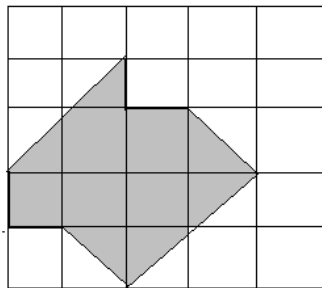


Use the five number cards to make the answer to the calculation below as large as possible



(2 marks)

-
19. Draw this shape on squared paper and then draw an enlargement of the shape with a scale factor of 2.



(2 marks)

-
20. £240 is shared between three people in the ratio 1:2:5
How much is the largest share?

(2 marks)

21. The expression $4a + b - a + b$ can be written in a more simple way as $3a + 2b$.
Write these in a more simple way

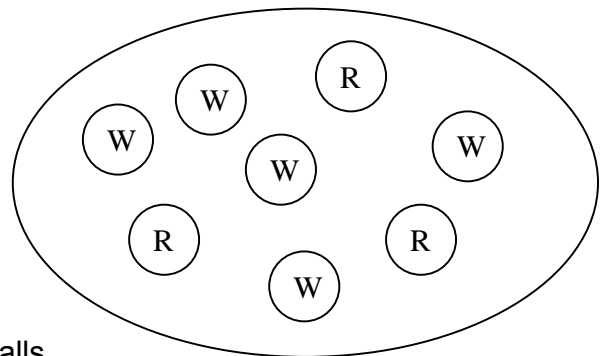
- (a) $5m + 3 + 4n - n + 2$ (1 mark)
- (b) $6m - 2n + 5m - n + 6$ (1 mark)
- (c) $5(n - m) + 2n + 6m$ (2 marks)

22. A bag contains 3 red balls and 5 white balls.

One ball is selected at random.

- (a) What is the probability of selecting a white ball?

(1 mark)



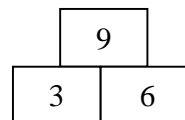
- (b) One more red ball and two more white balls are put in the bag.

What is the probability of selecting a white ball now?

(2 marks)

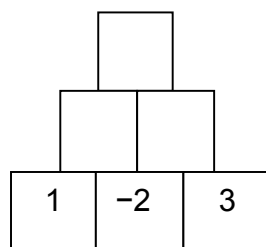
23. In this diagram the number in each box is found by adding the numbers in the two boxes underneath.

For example:



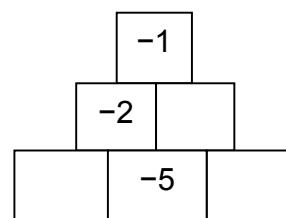
Copy each diagram and fill in the missing numbers.

(a)



(2 marks)

(b)



(2 marks)