

Test 1

Essential Maths 9S Units 1 & 2

No Calculators

1. Copy the grid on squared paper

(a) Plot and label the point A(3, -2)

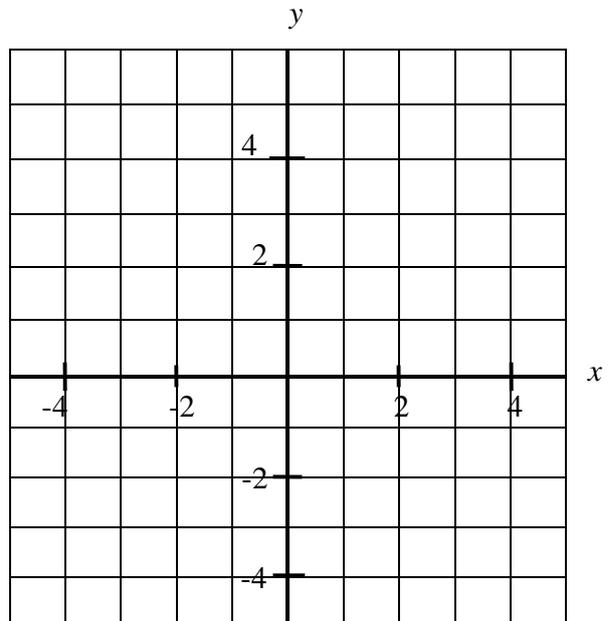
(1 mark)

(b) Draw and label the line $y = 3$

(1 mark)

(c) Draw and label the line $x = -2$

(1 mark)



2. Work out

(a) $\frac{3}{10}$ of 150 cm

(1 mark)

(b) $\frac{2}{5}$ of 135 kg

(1 mark)

(c) $\frac{3}{4} \times \frac{2}{5}$

(2 marks)

3. The cinema tickets for 4 people cost £26. How much would 10 people pay?

(2 marks)

4. Ian and Allie share a £2100 prize in the ratio 3:4.

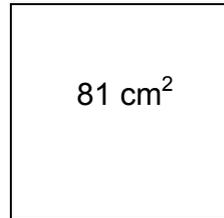
How much does Allie get?

(2 marks)

5. The area of a square is 81cm^2 .

Work out the length of each side of the square.

(1 mark)



6. (a) Solve the equation $5n + 3 = 38$ (1 mark)

(b) Solve the equation $3(n - 5) = 12$ (2 marks)

7. (a) Copy each sequence and fill in the empty boxes.

2, 9, 16, , 30, (1 mark)

160, 80, 40, , , 5 (1 mark)

(b) Write the next five numbers in the sequence which starts with 4 and adds 5 each time.

4, , , , , (2 marks)

8. Lynn earns £22,400 each year. She is given a 5% pay rise.
How much does she now earn each year?

(2 marks)

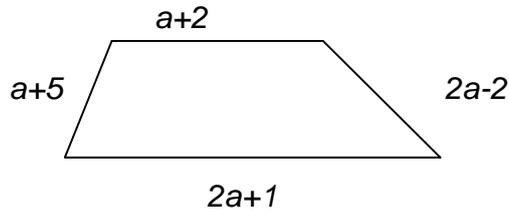
9. Work out the following

(a) $\sqrt{13+12} =$ (1 mark)

(b) $5 + 2^3 + 3^2 =$ (2 marks)

(c) 2% of 155 = (2 marks)

10. Work out the perimeter of this shape and write your answer in terms of a in its simplest form.
(ie. collect like terms)



(2 marks)

11. (a) Find the mean of the numbers 4, 7, 3, 8, 2 (1 mark)
(b) Find the median of the numbers 4, 9, 3, 6, 6, 1, 3 (1 mark)
(c) Find the mode of the numbers 3, 1, 2, 3, 1, 4, 3, 2 (1 mark)

12. (a) Change these fractions into percentages

(i) $\frac{6}{10} =$ (1 mark)

(ii) $\frac{1}{5} =$ (1 mark)

- (b) Phil scored 28 out of 35 in a history test. What percentage did he get?
(2 marks)

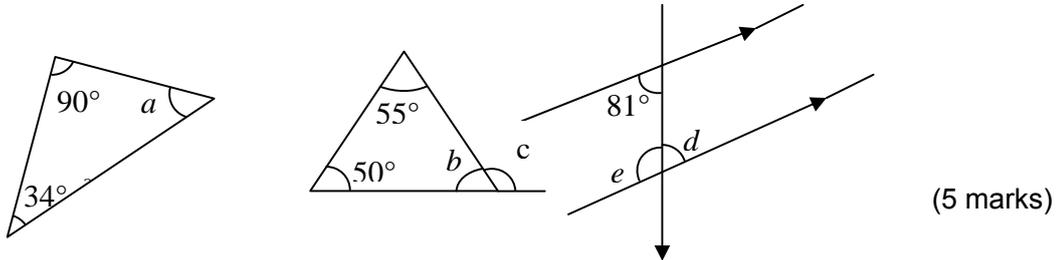
13. (a) Round off 738 to the nearest 100. (1 marks)
(b) Write 18.621 to the nearest whole number. (1 marks)
(c) Work out $11 \div 6$ and write the answer correct to 1 decimal place.
(2 marks)

14. A survey of TV channels was made. The table shows the results. Work out the angle for each TV channel on a pie chart.

TV channel	Frequency
BBC	8
ITV	4
Channel 4	5
Channel 5	3

(3 marks)

15. Find the angles marked with letters



16. Work out the following and give the answer as a decimal.

(a) $0.29 + \frac{1}{5} =$ (1 mark)

(b) $33\% + \frac{1}{4} =$ (2 marks)

17. (a) Decrease 714 by 353 (1 mark)

(b) Work out $448 \div 7$ (1 mark)

(c) Work out $8^2 - \sqrt{49}$ (1 mark)

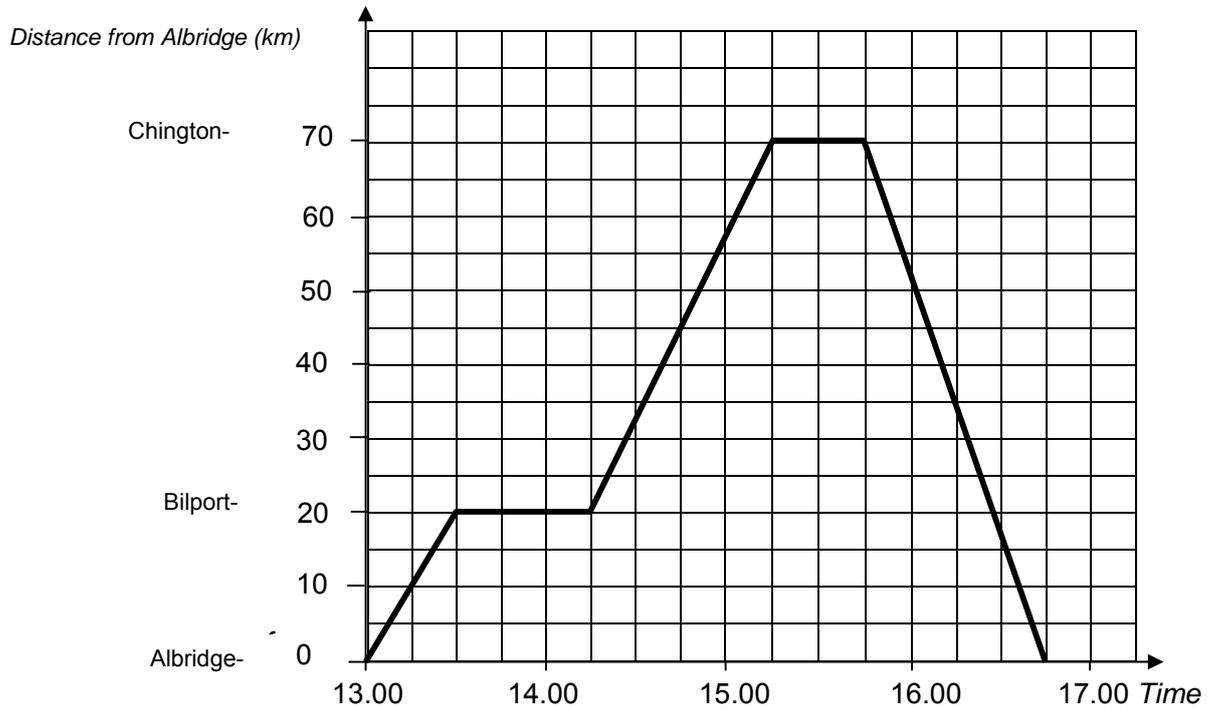
18. Copy and complete

(a) The sum of and 475 is 730 (1 mark)

(b) 4.3 increased by is 8 (1 mark)

(c) 444 added to is 1000 (1 mark)

19. This graph shows a car journey from Albridge to Chington and back again



- (a) For how long does the car stop at Bilport? (1 mark)
- (b) When does the car arrive at Chington? (1 mark)
- (c) When does the car leave Bilport? (1 mark)
- (d) How far is it from Bilport to Chington? (1 mark)
- (e) At what time on the return journey is the car exactly half-way between Chington and Albridge? (1 mark)

20.

1	8	3		
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Look at the numbers above. Write down the missing numbers so that the range of the numbers is 11 and the median is 7.

(2 marks)