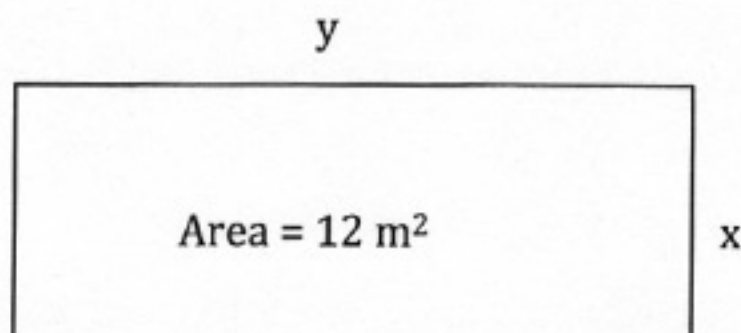


1.  $209 + 376 + 523 =$
2.  $6.24 - 2.35 =$
3. If I give away 7 sweets and have 16 left, how many did I start with?
4. If I divide 56 by a certain number my answer is 8. What number did I divide by?
5. If  $x + 19 = 32$ , what is the value of  $x$ ?
6. How many minutes in 4 hours?
7. Write 278 to the nearest 10.
8. Find the mean (average) of 10, 8, 18, 12.
9.  $3(14 - 9) =$
10.  $\frac{5}{8} + \frac{1}{2} =$
11.  $\frac{7}{8} \div \frac{2}{3} =$
12. Complete the table

Fraction	Decimal	Percentage
$\frac{3}{4}$		
	0.2	
		80

13. Calculate  $527 \div 4$  to the nearest whole number.
14. List the prime factors of 30
15.  $\sqrt{81} =$
16. If  $a = 6$  and  $b = 3$ , find  $a^2b$
17. How long is it between 11.20 am and 1.15 pm?
18. Calculate the square of 0.4
19. Write two more terms in the sequence: 2, 3, 5, 8, 12
20. Simplify  $x^6 \div x^2$
21. Factorise  $ab + bc$
22. Multiply out  $(x + 3)(x + 5)$
23. Write  $85 : 55$  in its simplest form.
24. A circle has a diameter of 6cm, what is its area to the nearest cm?
25. If a car travels 120 km in 3 hours, how far will it travel in 4 hrs at the same speed?
26. What is the  $n^{\text{th}}$  term of the sequence 3, 6, 9, 12, 15?
27. If the perimeter of the shape below is 14 m, what are the values of  $x$  and  $y$ ?



13. Given the equation  $v = u + at$  :

(a) Find  $v$  when  $u = 10$ ,  $a = 3$  and  $t = 8$ .

..... (2)

(b) Find  $v$  when  $u = 30$ ,  $a = -2$  and  $t = 7$ .

..... (2)

(c) Find  $a$  when  $u = 6$ ,  $v = 54$  and  $t = 16$ .

..... (3)

[7]

14.

a) Multiply out the brackets  $t(3t^2 + 8)$

..... (2)

b) Rearrange these formulae to make  $x$  the subject.

i)  $y = 3x + 4$

..... (2)

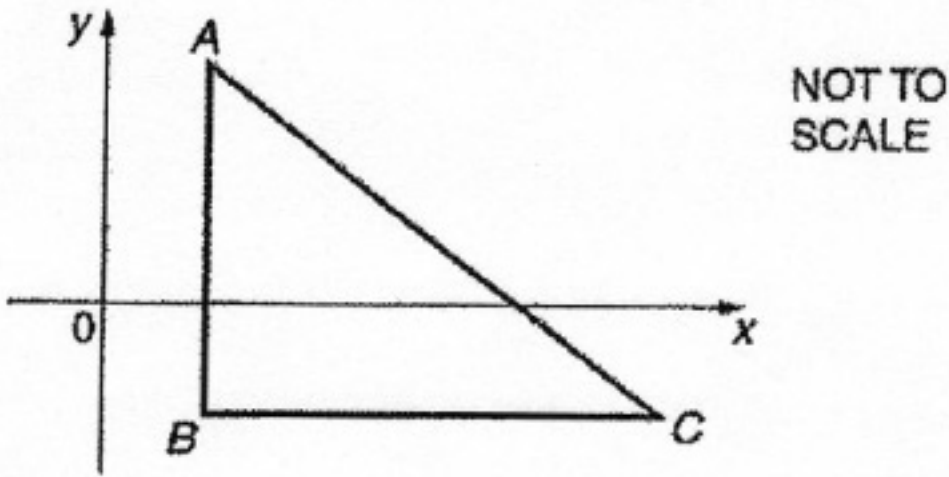
ii)  $5(x + y) = 7y - 9$

..... (3)

[7]

9. The diagram below shows a triangle ABC.

Side BC is parallel to the  $x$ -axis and side BA is parallel to the  $y$ -axis.  
The coordinates of B are  $(2, -3)$ .



(i) BC is 12 units long. Write down the coordinates of C.

( \_\_\_\_\_ , \_\_\_\_\_ ) (1)

(ii) The coordinates of A are  $(2, 7)$ . Find the area of triangle ABC.

..... (3)

[4]

10. (i) Write 30 as a product of prime factors

..... (2)

(ii) Write 24 as a product of prime factors

..... (2)

(iii) What is the Highest Common Factor of 24 and 30?

..... (1)

[5]

5. When Brian, Mike and John wrote a textbook, they agreed to share any money they made in the ratio 15 : 8 : 7.

(a) In the first year they made £3600 from the sale of the book.

How much was John's share?

..... (2)

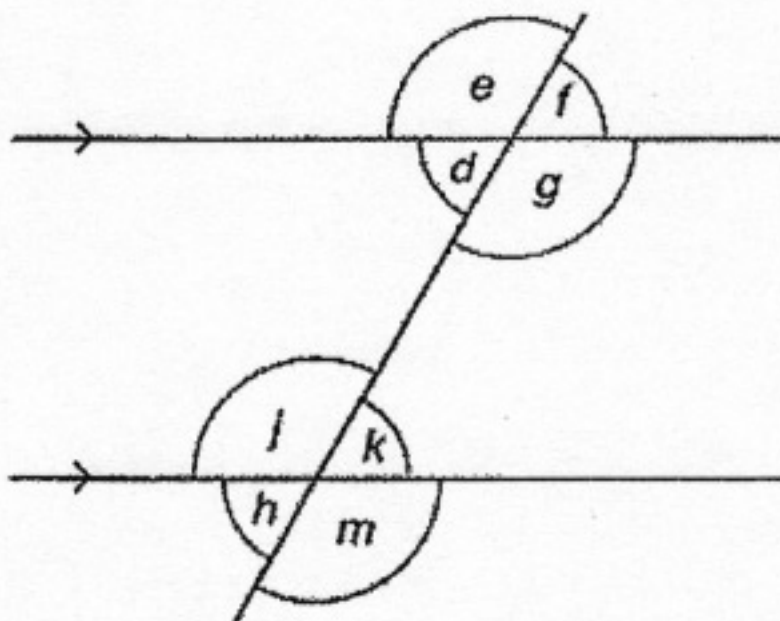
(b) In the second year, Mike's share was £1600.

How much was Brian's share?

..... (2)

[4]

6.



In the diagram above, which angle is

(i) vertically opposite to angle  $e$ ,

..... (1)

(ii) alternate to angle  $d$ ,

..... (1)

(iii) corresponding to angle  $h$ .

..... (1)

[3]