

Test 17: Algebra

1 Here is a pattern of number pairs.

a	b
6	2
8	4
10	6
12	8

Which rule does the number pattern follow? Circle it.

$a + b = 8$

$a \div b = 2$

$a \times b = 4$

$b = a - 4$

1 mark

2 y represents a number.

Hamed writes the number sentences below.

Two of them are not correct.

Cross out the mistakes and correct them.

One has been done for you.

3 more than y is ~~$3y$~~ $y + 3$

5 less than y is $y - 5$

2 more than twice y is $2 + y$

6 less than half of y is $\frac{1}{2}y - 6$

1 mark

3 Emma makes a sequence of numbers.

Her rule is to subtract the same amount each time.

Write the missing numbers.

17 -3

2 marks

- 4 A company uses this formula to calculate its fees for printing photos.

$$\text{Price} = 25\text{p} \times \text{number of photos} + \text{£2 delivery}$$

Izzy spends £10. How many photos does she print?

Show your method.

photos

2 marks

- 5 Samira thinks of two numbers greater than 6. The product of the two numbers is 63.

What are the two numbers?

1 mark

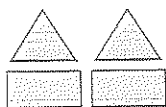
- 6 2 pens and 3 pencils cost 90p. 4 pens and 3 pencils cost £1.50. How much do 1 pencil and 1 pen cost?

Show your method.

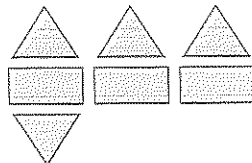
p

2 marks

- 7 Kane makes patterns with two different shapes. She gives each shape a value.



Total value = 18



Total value = 31

Tick the pair of values that the shapes could be.

= 3 = 6

= 2 = 7

= 4 = 5

= 5 = 4

1 mark

Total marks Time taken