

Factors, Multiples, Primes, Squares and Cubes

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **25**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Here is a list of numbers.

2 8 15 19 25 30 49 125

From the numbers in the list, write down

(a) a factor of 45

.....
(1)

(b) a multiple of 6

.....
(1)

(c) a square number

.....
(1)

(d) a cube number

.....
(1)

(e) two prime numbers

.....
(1)

(Total for Question 1 is 5 marks)

2 Write down all the factors of 36

.....
(2)

(Total for Question 2 is 2 marks)

3 Write down the smallest multiple of 8 that is greater than 100

.....
(1)

(Total for Question 3 is 1 mark)

4 Write down a common multiple of 6 and 8

.....
(1)

(Total for Question 4 is 1 mark)

5 Find the two prime numbers between 30 and 40

.....
(1)

(Total for Question 5 is 1 mark)

- 6 Two prime numbers are both greater than 10
When the two prime numbers are added together, the answer is 40
Find two prime numbers that fit these facts.

.....
(2)

(Total for Question 6 is 2 marks)

- 7 Work out $\sqrt{64} + 2^3$

.....
(2)

(Total for Question 7 is 2 marks)

- 8 Write down the value of $\sqrt{0.09}$

.....
(1)

(Total for Question 8 is 1 mark)

- 9 Show that 91 is not a prime number.

(1)
(Total for Question 9 is 1 mark)

- 10** Ben thinks of a number.
It is a multiple of 5
It is a factor of 60
It is not a multiple of 10
It is greater than 10
What number is Ben thinking of?

.....
(2)

(Total for Question 10 is 2 marks)

- 11** Rhys says,
‘All odd numbers are prime numbers.’
Is Rhys correct?
You must give a reason for your answer.

.....
(1)

(Total for Question 11 is 1 mark)

- 12** Here are two statements.
Both statements are wrong.
For each statement, give an example to show that it is wrong.

(a) All multiples of 3 are odd.

.....
(1)

(b) The sum of two prime numbers is always even.

.....
(1)

(Total for Question 12 is 2 marks)

- 13** Ravi chooses a square number greater than 1 and two different prime numbers.
He multiplies his three numbers together.
His answer is 90
Find the three numbers that Ravi chose.

.....
(2)

(Total for Question 13 is 2 marks)

- 14** Find the smallest number that is a multiple of both 4 and 6 and is also a square number.

.....
(2)

(Total for Question 14 is 2 marks)
