Name: _____

GCSE (1 – 9)

Factors, Multiples and Primes

Instructions

• Use **black** ink or ball-point pen.
• Answer all questions.
• Answer the questions in the spaces provided
– *there may be more space than you need.*
• Diagrams are **NOT** accurately drawn, unless otherwise indicated.
• You must **show all your working out.**

Information

• The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

• Read each question carefully before you start to answer it.
• Keep an eye on the time.
• Try to answer every question.
• Check your answers if you have time at the end

1   Write down a multiple of 7 that is between 20 and 30

....

(Total for question 1 is 1 mark)

2   Write down the first even multiple of 9

....

(Total for question 2 is 1 mark)

3   Write down a multiple of 9 that is between 30 and 50

....

(Total for question 3 is 1 mark)

4   Write down a prime number between 25 and 35

....

(Total for question 4 is 1 mark)

5   Write down two factors of 18

....

(Total for question 5 is 2 marks)

6 Write down all the prime numbers between 20 and 30

....

(Total for question 6 is 2 marks)

7 Write down two multiples of 10

.... , ...

(Total for question 7 is 2 marks)

8 Here is a list of numbers.

15 19 25 31 35 39 40

From the numbers on the list,

(a) write down an even number

....

(1)

(b) write down a multiple of 7

....

(1)

(Total for question 8 is 2 marks)

9 Write down two multiples of 8

.... , ...

(Total for question 9 is 2 marks)

10   Write down all the factors of 14

....

11   Write down all the factors of 20

....

12   Here is a list of numbers.

    30   31   32   33   34   35   36   37   38   39

From the numbers on the list,

(a) write down a square number

....
(1)

(b) write down a multiple of 8

....
(1)

(c) write down all of the prime numbers on the list.

....
(1)

13 Here is a list of numbers.

$$2 \qquad 9 \qquad 11 \qquad 15 \qquad 18 \qquad 31 \qquad 32$$

From the numbers on the list,

(a) write down a factor of 8

....
(1)

(b) write down a multiple of 6

....
(1)

(c) write down all of the prime numbers on the list.

....
(1)

(Total for question 13 is 3 marks)

14 Write down all of the prime numbers between between 10 and 20

....

(Total for question 14 is 2 marks)

15 Write down two multiples of 20

.... , ...

(Total for question 15 is 2 marks)

16 Write down all the factors of 16

....

(Total for question 16 is 2 marks)

17 Ian says: "21 is a prime number"

Is Ian correct?
You must give a reason for your answer.

....

....

(Total for question 17 is 1 mark)

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18 Here is a list of numbers.

3   5   9   16   19   27   28

From the numbers on the list,

(a) write down a factor of 12

....
(1)

(b) write down a multiple of 7

....
(1)

(c) write down all of the prime numbers on the list.

....
(1)

(Total for question 18 is 3 marks)

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19 Gary is thinking of a number.
He says,

"My number is prime and it is a factor of 36"

There are two possible numbers Gary can be thinking of.

Write down these two numbers.

....

(Total for question 19 is 2 marks)

20   Write down two prime numbers that have a sum of 30

.... , ...

(Total for question 20 is 2 marks)

21   Write down two prime numbers that have a sum of 19

.... , ...

(Total for question 21 is 2 marks)

22   Here is a list of numbers.

           8   12   15   17   23   27   32

From the numbers on the list,

(a) write down a factor of 16

....
(1)

(b) write down a multiple of 9

....
(1)

(c) write down all of the prime numbers on the list.

....
(1)

(Total for question 22 is 3 marks)

23   Barry is thinking of a number.
He says,

                "My number is even. It is a factor of 30 and a multiple of 5"

There are two possible numbers Barry can be thinking of.

Write down these two numbers.

....

(Total for question 23 is 3 marks)

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24   Paul is thinking of a number.
He says,

                "My number is odd. It is a factor of 18 and a multiple of 3"

There are two possible numbers Paul can be thinking of.

Write down these two numbers.

....

(Total for question 24 is 3 marks)