

1. Write 36 as a product of its prime factors.

(2)

2. Steve says,

“There are more prime numbers between 20 and 30
than there are between 10 and 20”

Is Steve right?

You must show how you get your answer.

(2)

- 3 Write down all the factors of 18

(2)

4. Nidah writes down two different prime numbers.

She adds together her two numbers.

Her answer is a square number less than 30

Find two prime numbers that Nidah could have written down.

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(2)

5. There are only blue pens, green pens and red pens in a box.

The ratio of the number of blue pens to the number of green pens is 2 : 5

The ratio of the number of green pens to the number of red pens is 4 : 1

There are less than 100 pens in the box.

What is the greatest possible number of red pens in the box?

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(3)

6. Write down the first even multiple of 7

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(1)

7. Margaret is thinking of a number.
She says,

“My number is odd. It is a factor of 36 and a multiple of 3”

There are two possible numbers Margaret can be thinking of.

Write down these two numbers.

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(3)

8. (a) Write down all the prime numbers between 20 and 30

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(2)

Catherine says,

“2 is the only even prime number.”

- (b) Is Catherine right?

You must give a reason for your answer.

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(1)

9. (a) Find the lowest common multiple (LCM) of 40 and 56

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(2)

$$A = 2^3 \times 3 \times 5 \qquad B = 2^2 \times 3 \times 5^2$$

- (b) Write down the highest common factor (HCF) of A and B .

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(1)

10. Write down all the factors of 30

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(2)

11. Here is a list of numbers.

3 5 7 12 15 18 20

From the list, write down a factor of 10

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(1)

12. Write down two prime numbers that have a sum of 32

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(2)

13. Write down two factors of 12

..... ,

(1)

14. Here is a list of numbers.

7 8 15 16 18 22

Write down the number from the list that is a multiple of 6

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(1)

15. Here is a list of numbers.

5 11 18 22 29

From the list, write down a multiple of 3

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(1)

16. Lucy uses a code to open a lock.

The code is a letter followed by a 2-digit number.

The letter is L or U.

The number is a prime number between 20 and 30

Write down all the possibilities for Lucy's code.

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(2)

17. (a) Write 84 as a product of its prime factors.

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(2)

(b) Find the lowest common multiple (LCM) of 60 and 84

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(2)

18. Here is a list of whole numbers from 21 to 30

21 22 23 24 25 26 27 28 29 30

(a) From the list, write down a square number.

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(1)

(b) From the list, write down a multiple of 8

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(1)

19. (a) Find the Highest Common Factor (HCF) of 60 and 84

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(2)

(b) Find the Lowest Common Multiple (LCM) of 24 and 40

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(2)