



- 1 Write down the first five prime numbers.

(1 mark)

1 is not prime

2, 3, 5, 7, 11

- 2 Here is a list of numbers.

9, 15, 17, 21, 25

Write down the prime number.

(1 mark)

9, 15, 21 divide by 3; 25 divides by 5

17

- 3 Here is a list of numbers.

8 14 19 27 35

Write down the number from the list that is a prime number.

(1 mark)

8 = 2 × 4, 14 = 2 × 7, 27 = 3 × 9, 35 = 5 × 7, so none of these are prime

19 has no factors other than 1 and 19, so 19 is prime

19

- 4 Is 51 a prime number? Give a reason for your answer.

(2 marks)

$$51 \div 3 = 17$$

$$\text{No} - 3 \times 17 = 51$$

5

Here is a list of numbers.

14, 23, 33, 39, 45

- Write down the multiple of 7.
- Write down the prime number.

(2 marks)

a)

$$7 \times 2 = 14$$

14

b)

$$33 = 3 \times 11, 39 = 3 \times 13, 45 = 5 \times 9$$

23

6

Explain why 1 is not a prime number.

(1 mark)

prime = exactly 2 factors

1 has only 1 factor

so 1 is not prime

7

List all the prime numbers between 20 and 35.

(2 marks)

Check each number from 21 to 34

21 = 3 × 7, 25 = 5 × 5, 27 = 3 × 9, 33 = 3 × 11 and all even numbers in this interval are divisible by 2 and greater than 2, so are not prime

The primes between 20 and 35 are 23, 29 and 31

23, 29, 31

8

Here are the prime numbers less than 20, with one missing: 2, 3, 5, 7, 11, 13, 17, ?

- Write down the missing prime number.
- Which of the prime numbers less than 20 is even?
- Explain why no other even number is prime.

(3 marks)

a)

18 = 2 × 9, 19 has no other factors

19

b)

2

c)

even numbers divide by 2

so they have factors 1, 2 and themselves

more than 2 factors, so not prime

9

Find two prime numbers that add together to make 32.

(2 marks)

Try prime pairs with sum 32

$3 + 29 = 32$ and both 3 and 29 are prime

$13 + 19 = 32$ also works

3 and 29 (or 13 and 19)