

Q1.

Find two **square numbers** that total 45

$$\square + \square = 45$$

1 mark

Q2.

Circle **all** the **prime factors** of 30

2 3 5 6 10

1 mark

Q3.

Circle the **two** prime numbers.

29 39 49 59 69

1 mark

Q4.

Here are three digit cards

1	5	6
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Choose two cards each time to make the following two-digit numbers.

The first one is done for you.

an even number

5	6
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an prime number

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a common factor of 60 and 90

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a common multiple of 5 and 13

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2 marks

Q5.

Millie and Ryan play a number game.

What's my number?



Is it under 20? Yes

Is it a multiple of 3? Yes

Is it a multiple of 5? Yes

What is the number?

1 mark

They play the game again.



Is it under 20? No

Is it under 25? Yes

Is it odd? Yes

Is it a prime number? Yes

What is the number?

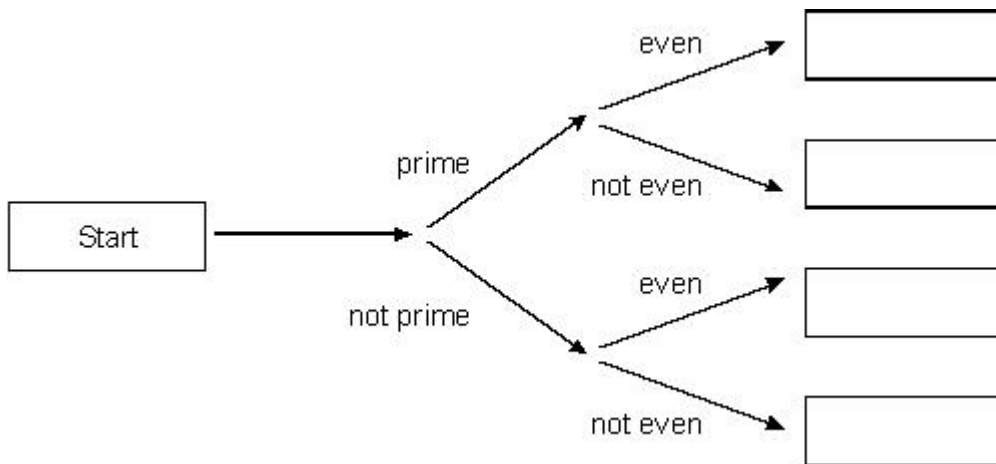
Q6.

Here is a diagram for sorting numbers.

Write these three numbers in the correct boxes.

You may not need to use all of the boxes.

9 17 20

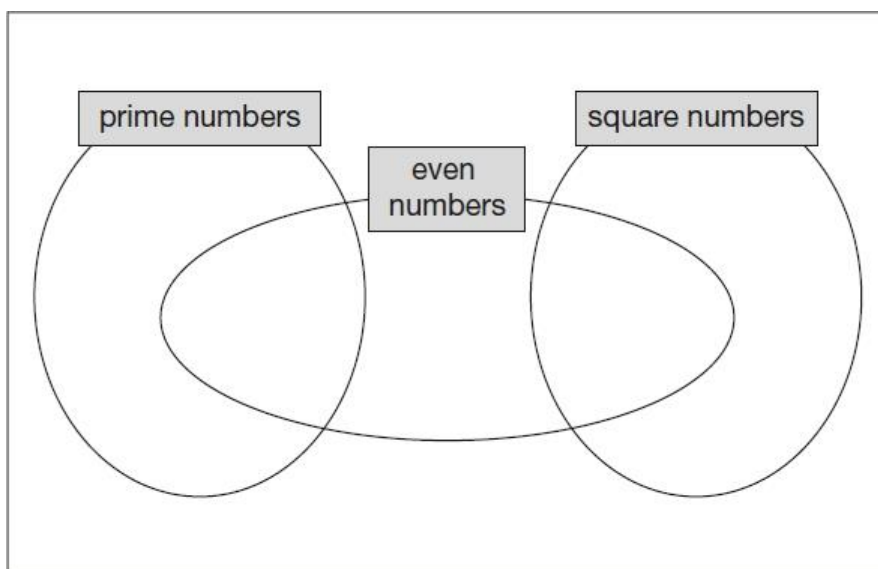


2 marks

Q7.

Write each number in its correct place on the diagram.

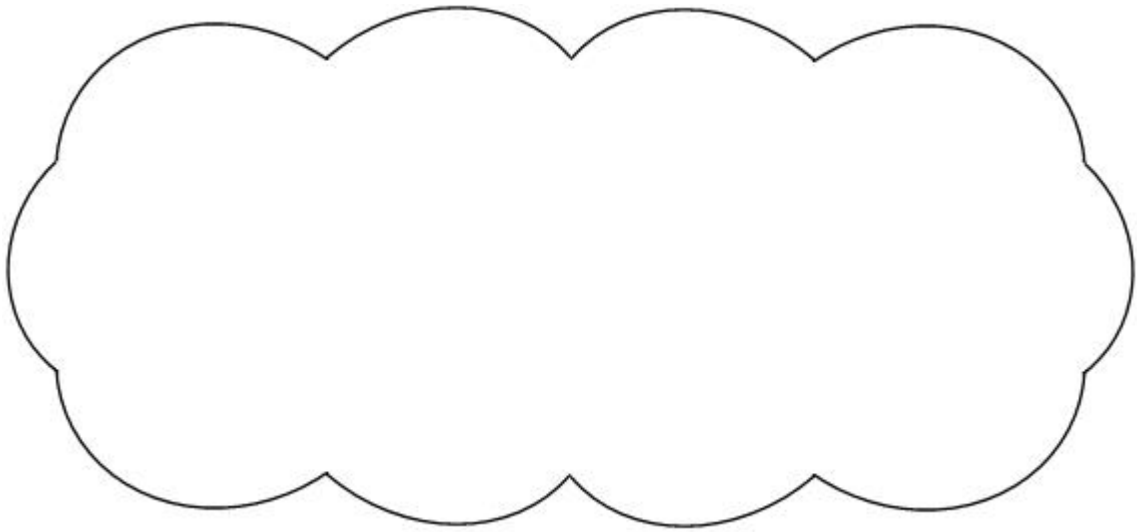
16 17 18 19



2 marks

Q8.

Explain why **16** is a **square number**.



1 mark

Q9.

Emma thinks of two **prime** numbers.

She adds the two numbers together.

Her answer is 36

Write **all** the possible pairs of prime numbers Emma could be thinking of.



2 marks

Q10.

A **square** number and a **prime** number have a total of 22

What are the two numbers?

$$\boxed{} + \boxed{} = 22$$

square number

prime number

1 mark

Q11.

Chen chooses a **prime** number.

He multiplies it by 10 and then rounds it to the nearest hundred.

His answer is **400**.

Write **all** the possible prime numbers Chen could have chosen.

2 marks

Q12.

Find two **cube numbers** that total 152

$$\square + \square = 152$$

1 mark

Q13.

Here are five numbers.

~~2~~ 3 4 5 6

Write each number on the correct cards.

The number 2 has been written on the correct cards for you.

<p>Prime numbers</p> <p>2</p>	<p>Factors of 12</p> <p>2</p>	<p>Factors of 15</p>
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2 marks

Q14.

Here is a sorting diagram for numbers.

Write a number less than 100 in each space.

	even	not even
a cube number		
not a cube number		

2 marks

Q15.

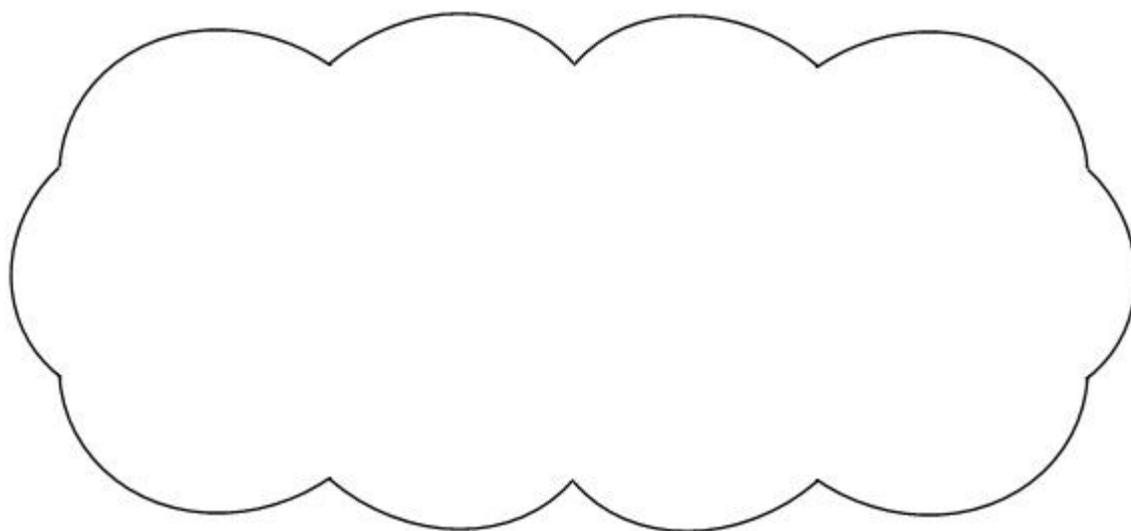
Circle the **prime** number.

95

89

87

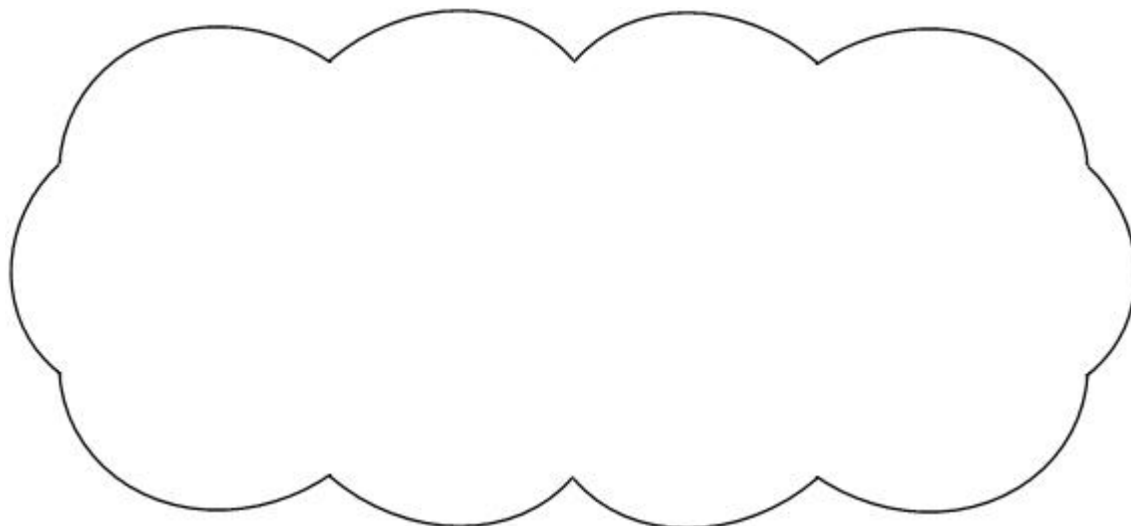
Explain how you know the other numbers are **not** prime.



1 mark

Q16.

Explain why 125 is a **cube** number.



1 mark

Q17.

1 is both a square number and a cube number.

4 is a square number, but not a cube number.

What is the next number that is both a square number and a cube number?

1 mark