

Thursday 2nd July

Today we will be investigating

Mirror Primes

Before we do that, test yourself with the following questions, thinking about whether you can solve any using a mental method.

There are more challenges waiting for you on Sumdog too!

$$A. 87 + 21 =$$

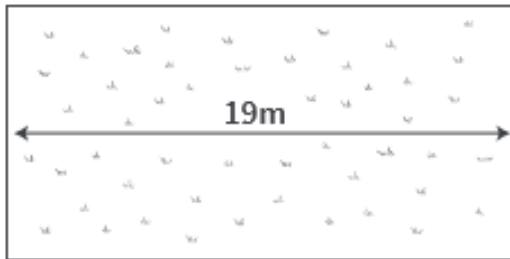
$$B. 46 \times 29 =$$

$$C. 893 + 30 =$$

$$D. 93.1 \times 100 =$$

$$E. 2,074 \div 7 =$$

- Q1** The area of a farmer's field is 703m^2 .
The field is rectangular. The width of the field is 19m .



Not to scale

What is the height of the field?

 m

2 marks

- Q2** Look at this number:

74,903,182.3

- a** Write down the **digit** that is in the tenths place.

1 mark

- b** Write down the **digit** that is in the ten thousands place.

1 mark

- Q3** Circle **two** numbers that multiply together to equal 1 million.

200 2,000 5,000 50,000

1 mark

Mirror Primes

13 and 31 are both prime numbers. If a number and its mirror number are both prime then it is called a mirror prime. 29 is a prime number, but 92 is not.

Therefore 29 is not a mirror prime.

1. Which of the following are mirror primes? 11, 17, 19, 23.
2. Find all the mirror primes up to 100. How many are there?
3. What is the smallest 3-digit mirror prime? What is the biggest?

Answers

$$\text{A. } 87 + 21 = 108 \text{ (M)}$$

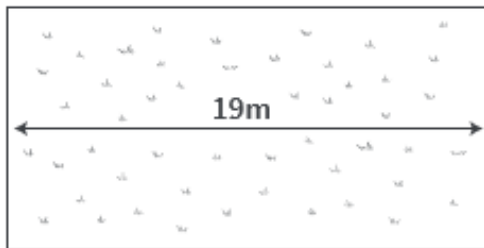
$$\text{B. } 46 \times 29 = 1,334 \text{ (W)}$$

$$\text{C. } 893 + 30 = 923 \text{ (M)}$$

$$\text{D. } 93.1 \times 100 = 9,310 \text{ (M)}$$

$$\text{E. } 2,074 \div 7 = 296 \text{ r } 2 \text{ or } 296 \frac{2}{7} \text{ (W)}$$

- Q1** The area of a farmer's field is 703m^2 .
The field is rectangular. The width of the field is 19m .



What is the height of the field?

37 m

2 marks

- Q2** Look at this number:

74,903,182.3

- a** Write down the digit that is in the tenths place.

3

1 mark

- b** Write down the digit that is in the ten thousands place.

0

1 mark

- Q3** Circle two numbers that multiply together to equal 1 million.

200
2,000
5,000
50,000

1 mark