

For these examples get the children to work out the prime numbers from 1-100 first and have them as reference.

Five Rules of Primes

- 1) Is not 1!
- 2) Not a multiple of 2 (Except 2)
- 3) Not a multiple of 3 (Except 3)
- 4) Not a multiple of 5 (Except 5)
- 5) Not a multiple of 7 (Except 7)

See if the children can find patterns in the answers. (Answer below)

$$5 \quad 7 \quad 11 \quad 13 \quad (5 + 13 = 18, 7 + 11 = 18)$$

$$7 \quad 11 \quad 13 \quad 17 \quad (7 + 17 = 24, 11 + 13 = 24)$$

$$11 \quad 13 \quad 17 \quad 19 \quad (11 + 19 = 30, 13 + 17 = 30)$$

$$13 \quad 17 \quad 19 \quad 23 \quad (13 + 23 = 36, 17 + 19 = 36)$$

Q4 (Prime Numbers) Day 105 **Name:** _____

1. John notices that $24 = 5 + 19$ and that 5 and 19 are both **prime** numbers. Find **two other** prime numbers which add to give 24. Write your answers in the spaces below.

_____ and _____

2. Sam notices that $30 = 19 + 11$ and that 19 and 11 are both **prime** numbers. Find **two other** prime numbers which add to give 30. Write your answers in the spaces below.

_____ and _____

3. Barney notices that $36 = 19 + 17$ and that 19 and 17 are both **prime** numbers. Find **two other** prime numbers which add to give 36. Write your answers in the spaces below.

_____ and _____

4. Ruth notices that $42 = 19 + 23$ and that 19 and 23 are both **prime** numbers. Find **two other** prime numbers which add to give 42. Write your answers in the spaces below.

_____ and _____

5. Grace notices that $48 = 19 + 29$ and that **19** and **29** are both **prime** numbers. Find **two other** prime numbers which add to give **48**. Write your answers in the spaces below.

_____ and _____

6. Derek notices that $54 = 31 + 23$ and that **31** and **23** are both **prime** numbers. Find **two other** prime numbers which add to give **54**. Write your answers in the spaces below.

_____ and _____

7. Michael notices that $60 = 41 + 19$ and that **41** and **60** are both **prime** numbers. Find **two other** prime numbers which add to give **60**. Write your answers in the spaces below.

_____ and _____

8. Clare notices that $25 = 2 + 23$ and that **2** and **23** are both **prime** numbers and that **25** is a **square number**. Find **two** prime numbers which add to give the square number **36**. Write your answers in the spaces below.

_____ and _____

9. Max notices that $25 = 2 + 23$ and that 2 and 23 are both **prime** numbers and that 25 is a **square number**. Find **two** prime numbers which add to give the square number 49. Write your answers in the spaces below.

_____ and _____

10. Annie notices that $25 = 2 + 23$ and that 2 and 23 are both **prime** numbers and that 25 is a **square number**. Find **two** prime numbers which add to give the square number 64. Write your answers in the spaces below.

_____ and _____

11. Patrick notices that $25 = 2 + 23$ and that 2 and 23 are both **prime** numbers and that 25 is a **square number**. Find **two** prime numbers which add to give the square number 81. Write your answers in the spaces below.

_____ and _____

12. Gemma notices that $25 = 2 + 23$ and that 2 and 23 are both **prime** numbers and that 25 is a **square number**. Find **two** prime numbers which add to give the square number 100. Write your answers in the spaces below.

_____ and _____

Answers

1. 11, 13 or 7, 17 or 19, 5
2. 13, 17 or 7, 23 or 19, 11
3. 23, 13 or 31, 5 or 29, 7 or 17, 19
4. 29, 13 or 31, 11 or 29, 13 or 5, 37
5. 31, 17 or 43, 5 or 41, 7 or 37, 11 or 31, 17
6. 37, 17 or 47, 7 or 43, 11 or 41, 13 or 23, 31
7. 43, 17 or 53, 7 or 47, 13 or 43, 17 or 37, 23 or 31, 29 or 19, 41
8. 13, 23 or 31, 5 or 29, 7 or 17, 19
9. 2, 47
10. 17, 47 or 61, 3 or 59, 5 or 53, 11 or 47, 17 or 41, 23
11. 2, 79
12. 3, 97 or 89, 11 or 83, 17 or 71, 29 or 59, 41 or 53, 47