

# EQUALITY IN NUMBERS

Answer all of these questions. Remember to show your working out in all questions.

## MAIN QUESTIONS

---

1.

$$2x + 3 = 11$$

3.

$$3x - 7 = 8$$

5.

$$7 - 2x = 1$$

7.

$$3x/2 = 9$$

9.

$$4(x - 2) = 20$$

11.

$$3x + 4 = 2x + 10$$

13.

$$2(3x - 1) = 16$$

15.

$$4x - 7 = 3x + 2$$

17.

$$5x/2 - 3 = 7$$

19.

$$4(2x - 3) = 20$$

21.

$$3x + 2 = 5x - 8$$

2.

$$5 - x = 2$$

4.

$$4x + 5 = 21$$

6.

$$2(x + 3) = 14$$

8.

$$5x - 3 = 2x + 9$$

10.

$$2x/3 + 1 = 5$$

12.

$$5 - 3x = x - 7$$

14.

$$x/4 + 2 = 5$$

16.

$$3(x + 2) = 2(x + 5)$$

18.

$$2x + 5 = 3x - 1$$

20.

$$x/3 - 2 = 4$$

22.

$$2(x - 3) = 3(x + 1)$$

23.

$$4x/3 + 1 = 9$$

25.

$$3(2x + 1) = 4(x - 2)$$

27.

$$4x + 3 = 7x - 9$$

29.

$$3x/4 + 2 = 8$$

31.

$$2(3x - 4) = 5(x + 1)$$

33.

$$7x - 4 = 5x + 8$$

35.

$$3x/5 - 2 = 4$$

37.

$$3(2x - 1) = 4(x + 2)$$

39.

$$9x - 5 = 7x + 11$$

24.

$$5x - 2 = 3x + 10$$

26.

$$2x/5 - 3 = 1$$

28.

$$5(x + 2) = 3(x + 6)$$

30.

$$6x - 5 = 4x + 7$$

32.

$$5x/2 + 3 = 13$$

34.

$$4(x - 3) = 2(2x + 1)$$

36.

$$8x - 3 = 6x + 9$$

38.

$$7x/3 + 1 = 8$$

40.

$$5(2x + 3) = 3(4x - 1)$$

## MASTER QUESTIONS



M1.

A number is doubled and then 5 is added, giving 17. Find the number.

M2.

The sum of three consecutive integers is 54. Find the integers.

M3.

A rectangle's length is 3cm more than its width. If the perimeter is 26cm, find the dimensions.

M4.

Sarah is twice as old as Tom. In 5 years, their ages will sum to 55. Find their current ages.

M5.

A number multiplied by 4 and then decreased by 7 equals the number increased by 11. Find the number.

M6.

The sum of two numbers is 45, and their difference is 15. Find the numbers.

M7.

A train travels at a constant speed. It covers 240km in 3 hours. How far will it travel in 7 hours?

M8.

Three-fifths of a number is 24. Find the number.

M9.

The area of a square is  $144\text{cm}^2$ . Find its perimeter.

M10.

A shop sells pens for £1.20 each. If a customer spends £14.40 on pens, how many did they buy?