

# EQUATIONS WITH BRACKETS

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

## MAIN QUESTIONS

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- |     |                  |  |         |     |                  |  |         |
|-----|------------------|--|---------|-----|------------------|--|---------|
| 1.  | $2(3x + 1) = 14$ |  | $x = 2$ | 2.  | $3(2x + 4) = 24$ |  | $x = 2$ |
| 3.  | $4(2x + 3) = 28$ |  | $x = 2$ | 4.  | $5(2x + 1) = 25$ |  | $x = 2$ |
| 5.  | $2(4x + 3) = 22$ |  | $x = 2$ | 6.  | $3(3x + 2) = 24$ |  | $x = 2$ |
| 7.  | $4(3x + 2) = 32$ |  | $x = 2$ | 8.  | $5(3x + 1) = 35$ |  | $x = 2$ |
| 9.  | $2(5x + 4) = 28$ |  | $x = 2$ | 10. | $3(4x + 3) = 33$ |  | $x = 2$ |
| 11. | $6(2x + 1) = 30$ |  | $x = 2$ | 12. | $7(2x + 3) = 35$ |  | $x = 1$ |
| 13. | $8(2x + 1) = 40$ |  | $x = 2$ | 14. | $9(2x + 2) = 36$ |  | $x = 1$ |
| 15. | $2(6x + 5) = 34$ |  | $x = 2$ | 16. | $3(5x + 4) = 42$ |  | $x = 2$ |
| 17. | $4(4x + 3) = 44$ |  | $x = 2$ | 18. | $5(4x + 2) = 50$ |  | $x = 2$ |
| 19. | $6(3x + 2) = 48$ |  | $x = 2$ | 20. | $7(3x + 1) = 49$ |  | $x = 2$ |
| 21. | $8(3x + 2) = 64$ |  | $x = 2$ | 22. | $9(3x + 1) = 63$ |  | $x = 2$ |
| 23. | $2(7x + 6) = 40$ |  | $x = 2$ | 24. | $3(6x + 5) = 51$ |  | $x = 2$ |
| 25. | $4(5x + 4) = 56$ |  | $x = 2$ | 26. | $5(5x + 3) = 65$ |  | $x = 2$ |
| 27. | $6(4x + 3) = 66$ |  | $x = 2$ | 28. | $7(4x + 2) = 70$ |  | $x = 2$ |

29.  $8(4x + 3) = 88$

$x = 2$

30.  $9(4x + 2) = 90$

$x = 2$

## MASTER QUESTIONS



M1. A rectangle's length is 3 times its width plus 2cm. If the perimeter is 28cm, find the width. | The width is 3cm

M2. A number multiplied by 4 and increased by 3 gives 27. Find the number. | The number is 6

M3. Five times a number plus 2 equals 32. What is the number? | The number is 6

M4. A box contains sweets. If each child gets 3 sweets plus 2 extra, and 20 sweets are distributed, how many children are there? | There are 6 children

M5. The area of a rectangle is  $35\text{cm}^2$ . If the length is 3cm more than twice the width, find the width. | The width is 5cm

M6. A train travels at a constant speed. In 4 hours it covers 5 times the distance plus 8km, totalling 48km. Find the speed. | The speed is 8km/h

M7. A bookshelf has 7 shelves. Each shelf holds 4 books plus 3 extra, with 35 books total. How many books per shelf? | There are 5 books per shelf

M8. A recipe requires 2 cups of flour per batch plus 3 extra cups. With 17 cups available, how many batches can be made? | 7 batches can be made

M9. A garden's length is 5m more than twice its width. If the perimeter is 34m, find the width. | The width is 4m

M10. A number when multiplied by 6 and increased by 4 gives 40. Find the number. | The number is 6