LINEAR EQUATIONS WITH BRACKETS

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

MAIN QUESTIONS

1. $2(3x + 1) = 14$

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

3. $5(x + 2) = 35$

4. $3(4x - 1) = 33$

5. $7(2x + 3) = 63$

6. $6(3x - 2) = 42$

7. $8(x + 4) = 64$

8. $9(2x - 1) = 81$

9. $2(5x + 3) = 36$

10. $3(6x - 4) = 48$

11. $4(3x + 5) = 68$

12. $5(4x - 2) = 70$

13. $6(2x + 7) = 90$

14. $7(3x - 4) = 77$

15. $8(4x + 1) = 104$

16. $9(5x - 3) = 108$

17. $10(2x + 6) = 140$

18. $11(3x - 2) = 121$

19. $12(4x + 3) = 156$

20. $13(2x - 5) = 91$

21. $14(3x + 4) = 182$

22. $15(5x - 2) = 195$

23. $16(2x + 7) = 208$

24. $17(4x - 3) = 221$

25. $18(3x + 8) = 234$

26. $19(2x - 6) = 190$

27. $20(5x + 2) = 240$

28. $21(3x - 4) = 231$

29. $22(4x + 5) = 286$

30. $23(2x - 7) = 207$

MASTER QUESTIONS

M1. A rectangle's length is 3cm more than twice its width. If the perimeter is 54cm, find the dimensions.

M2. Three consecutive integers sum to 78. Find the integers.

M3. A number multiplied by 5 and increased by 12 equals 47. Find the number.

M4. The sum of two numbers is 45. One number is 15 more than the other. Find both numbers.

M5. A train travels at a constant speed. In 5 hours it covers 325km. How far will it travel in 8 hours?

M6. The area of a rectangle is 96cm^2. If the length is 8cm more than the width, find the dimensions.

M7. A shop sells pens for £2 each and notebooks for £3 each. If a customer buys 5 items and spends £12, how many of each did they buy?

M8. The sum of three consecutive even numbers is 78. Find the numbers.

M9. A father is three times as old as his son. In 12 years, he will be twice as old. Find their current ages.

M10. A mixture contains nuts and raisins in the ratio 5:3. If there are 120g of nuts, how many grams of raisins are there?