LINEAR EQUATIONS WITH BRACKETS

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

MAIN QUESTIONS

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

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

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

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

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

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

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

8. $9(2x - 1) = 81$ x = 5

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

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

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

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

13. $6(2x + 7) = 90$ x = 4

14. $7(3x - 4) = 77$ x = 5

15. $8(4x + 1) = 104$ x = 3

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

17. $10(2x + 6) = 140$ x = 4

18. $11(3x - 2) = 121$ x = 5

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

20. $13(2x - 5) = 91$ x = 6

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

22. $15(5x - 2) = 195$ x = 3

23. $16(2x + 7) = 208$ x = 5

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

25. $18(3x + 8) = 234$ x = 5

26. $19(2x - 6) = 190$ x = 8

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

28. $21(3x - 4) = 231$ x = 5

29. $22(4x + 5) = 286$ | $x = 3$ **30.** $23(2x - 7) = 207$ | $x = 8$

MASTER QUESTIONS

M1. A rectangle's length is 3cm more than twice its width. If the perimeter is 54cm, find the dimensions. | Width = 8cm, Length = 19cm

M2. Three consecutive integers sum to 78. Find the integers. | 25, 26, 27

M3. A number multiplied by 5 and increased by 12 equals 47. Find the number. | 7

M4. The sum of two numbers is 45. One number is 15 more than the other. Find both numbers. | 15 and 30

M5. A train travels at a constant speed. In 5 hours it covers 325km. How far will it travel in 8 hours? | 520km

M6. The area of a rectangle is 96cm^2. If the length is 8cm more than the width, find the dimensions. | Width = 8cm, Length = 12cm

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? | 3 pens and 2 notebooks

M8. The sum of three consecutive even numbers is 78. Find the numbers. | 24, 26, 28

M9. A father is three times as old as his son. In 12 years, he will be twice as old. Find their current ages. | Son = 12 years, Father = 36 years

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? | 72g