COORDINATES FROM LINEAR EQUATIONS

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

MAIN QUESTIONS

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1. $y = 2x + 3$, $x = 4$ | (4, 11)

2. $y = 3x - 1$, $x = 5$ | (5, 14)

3. $y = 4x + 2$, $x = 3$ | (3, 14)

4. $y = 5x - 3$, $x = 2$ | (2, 7)

5. $y = -x + 7$, $x = 1$ | (1, 6)

6. $y = 6x + 1$, $x = 0$ | (0, 1)

7. $y = -2x + 5$, $x = 3$ | (3, -1)

8. $y = 3x + 4$, $x = -2$ | (-2, -2)

9. $y = -4x - 1$, $x = -3$ | (-3, 11)

10. $y = 2x - 5$, $x = 6$ | (6, 7)

11. $y = 3x + 2$, $y = 11$ | (3, 11)

12. $y = 5x - 4$, $y = 16$ | (4, 16)

13. $y = -x + 8$, $y = 3$ | (5, 3)

14. $y = 4x - 3$, $y = 13$ | (4, 13)

15. $y = 2x + 7$, $y = 15$ | (4, 15)

16. $y = -3x + 4$, $y = -5$ | (3, -5)

17. $y = 6x - 2$, $y = -14$ | (-2, -14)

18. $y = -2x - 5$, $y = 7$ | (-6, 7)

19. $y = 5x + 1$, $y = -9$ | (-2, -9)

20. $y = 3x - 7$, $y = 2$ | (3, 2)

21. $y = (1/2)x + 4$, $x = 6$ | (6, 7)

22. $y = (3/4)x - 2$, $x = 8$ | (8, 4)

23. $y = 2x + 1/2$, $x = 1/2$ | (0.5, 1.5)

24. $y = -5x + 3$, $y = 1/2$ | (0.5, 0.5)

25. $y = (2/3)x - 4$, $y = -2$ | (3, -2)

26. $y = 4x - 1/3$, $x = 1/4$ | (0.25, -0.083)

27. $y = -x + 0.5$, $x = 1.5$ | (1.5, -1)

28. $y = 3.5x + 2$, $y = 16$ | (4, 16)

29. $y = -1/2x + 6$, $y = 3.5$ | (5, 3.5)

30. $y = 0.2x - 3$, $x = 10$ | (10, -1)

MASTER QUESTIONS

M1. A plant grows 3 cm per week. It was 10 cm tall initially. Find the coordinate (weeks, height) after 5 weeks. | (5, 25)

M2. A car travels at 50 km/h. Express the distance after 2.5 hours as a coordinate (hours, distance). | (2.5, 125)

M3. The temperature drops 2°C per hour from 20°C. Give the coordinate (hours, temperature) after 6 hours. | (6, 8)

M4. A tank drains 30 litres per minute from 1000 litres. State the coordinate (minutes, litres) after 15 minutes. | (15, 550)

M5. Profits are £5 per item sold minus £200 fixed costs. Find the coordinate (items, profit) for 80 items sold. | (80, 200)

M6. A bike hire costs £3 plus £1.50 per hour. What is the coordinate (hours, cost) for 7 hours? | (7, 13.5)

M7. A taxi charges £2.80 plus £1.20 per mile. Calculate the coordinate (miles, cost) for a 12-mile journey. | (12, 17.2)

M8. Water fills a pool at 40 litres/minute from empty. When will it have 600 litres? Give the coordinate (minutes, litres). | (15, 600)

M9. A candle shortens 1.8 cm per hour from 24 cm. At what height after 4 hours? State coordinate (hours, height). | (4, 16.8)

M10. Membership costs £15 monthly plus £10 joining fee. What is the coordinate (months, total cost) after 9 months? | (9, 145)