

PLOTTING STRAIGHT LINE GRAPHS

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

MAIN QUESTIONS

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|-----|-----------------------------------|--|--------------------|-----|-------------------------|--|---------------------|
| 1. | $y = 2x + 5$ | | $m = 2, c = 5$ | 2. | $y = 4x - 3$ | | $m = 4, c = -3$ |
| 3. | $y = 7x + 1$ | | $m = 7, c = 1$ | 4. | $y = 5x - 2$ | | $m = 5, c = -2$ |
| 5. | $y = 3x + 0$ | | $m = 3, c = 0$ | 6. | $y = -3x + 4$ | | $m = -3, c = 4$ |
| 7. | $y = 2x - 6$ | | $m = 2, c = -6$ | 8. | $y = -5x - 1$ | | $m = -5, c = -1$ |
| 9. | $y = -x + 3$ | | $m = -1, c = 3$ | 10. | $y = -4x - 2$ | | $m = -4, c = -2$ |
| 11. | $y = \frac{1}{2}x + 3$ | | $m = 1/2, c = 3$ | 12. | $y = \frac{3}{4}x - 2$ | | $m = 3/4, c = -2$ |
| 13. | $y = \frac{2}{5}x + 1$ | | $m = 2/5, c = 1$ | 14. | $y = -\frac{1}{3}x + 4$ | | $m = -1/3, c = 4$ |
| 15. | $y = -\frac{5}{2}x - \frac{3}{3}$ | | $m = -5/2, c = -3$ | 16. | $2y = 6x + 8$ | | $m = 3, c = 4$ |
| 17. | $3y = 9x - 6$ | | $m = 3, c = -2$ | 18. | $4y + 8x = 12$ | | $m = -2, c = 3$ |
| 19. | $5y - 10x = 15$ | | $m = 2, c = 3$ | 20. | $3y - 6x = 0$ | | $m = 2, c = 0$ |
| 21. | $2x + 3y = 6$ | | $m = -2/3, c = 2$ | 22. | $5x - 2y = 10$ | | $m = 5/2, c = -5$ |
| 23. | $4x + 5y = 20$ | | $m = -4/5, c = 4$ | 24. | $3x - 4y = 12$ | | $m = 3/4, c = -3$ |
| 25. | $6x + 2y = 5$ | | $m = -3, c = 5/2$ | 26. | $y = 1.5x - 2.5$ | | $m = 1.5, c = -2.5$ |

27. $0.5y = 2x - 1$ | $m = 4, c = -2$

28. $1.2y + 0.6x = 3.6$ | $m = -0.5, c = 3$

29. $y = -0.75x + 1.25$ | $m = -0.75, c = 1.25$

30. $2.5y = 5x + 7.5$ | $m = 2, c = 3$

MASTER QUESTIONS



M1. A car hire company charges a fixed fee of £40 plus £0.25 per mile. Find the gradient and y-intercept of the cost (y in £) for x miles driven. | $m = 0.25, c = 40$

M2. The temperature in a freezer decreases by 4°C per hour. Initially it was -2°C. Find the gradient and y-intercept of the temperature (y in °C) after x hours. | $m = -4, c = -2$

M3. A line passes through the points (1, 4) and (3, 10). Find its gradient and y-intercept. | $m = 3, c = 1$

M4. A gym membership has a joining fee of £50 and monthly payments of £30. Find the gradient and y-intercept of the total cost (y in £) after x months. | $m = 30, c = 50$

M5. A candle burns losing 2 cm in height per hour. Originally 15 cm tall, find the gradient and y-intercept of its height (y in cm) after x hours. | $m = -2, c = 15$