

LINEAR EQUATIONS WORKSHEET

ALL WORK AND ANSWERS IN SPIRAL

Write the slope of the line containing each pair of points.

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|------------------------|-----------------------|------------------------|
| 1. (3, 4) and (5, 7) | 2. (5, 2) and (9, 4) | 3. (1, -3) and (-4, 7) |
| 4. (-2, 1) and (2, -2) | 5. (-2, 3) and (4, 3) | 6. (8, 5) and (3, 5) |

Identify the y-intercept in each equation.

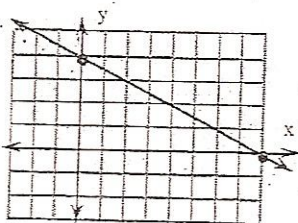
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|----------------------------|---------------------------------------|--------------------|
| 10. $y = \frac{1}{2}x - 2$ | 11. $y = -\frac{3}{5}x - \frac{5}{3}$ | 12. $3x + 2y = 12$ |
| 13. $x - y = -13$ | 14. $2x - 4y = 12$ | 15. $4y - 2x = 12$ |

Write the equation of the line with:

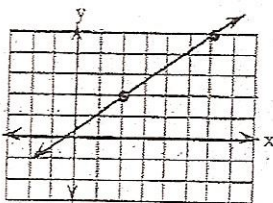
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|---|---|
| 16. slope = $\frac{1}{2}$ and passing through (4, 3). | 17. slope = $\frac{2}{3}$ and passing through (-3, -2). |
| 18. slope = $-\frac{1}{3}$ and passing through (4, -1). | 19. slope = -4 and passing through (-3, 5). |

Determine the slope of each line using the highlighted points.

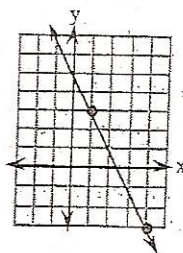
20.



21.

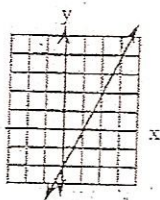


22.

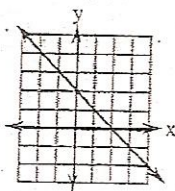


Using the slope and y-intercept, determine the equation of the line.

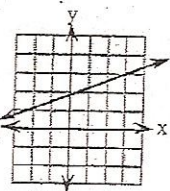
23.



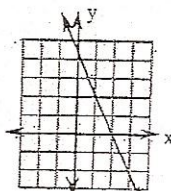
24.



25.



26.



Find an equation of the line through the given point and parallel to the given line.

- | | |
|------------------------------|--|
| 40. $y = 2x - 2$ and (-3, 5) | 41. $y = \frac{1}{2}x + 3$ and (-4, 2) |
| 42. $x - y = 2$ and (-2, 3) | 43. $y - x = -1$ and (-2, 1) |

Find an equation of the line through the given point and perpendicular to the given line.

- | | |
|------------------------------|--|
| 48. $y = 2x - 2$ and (-3, 5) | 49. $y = \frac{1}{2}x + 3$ and (-4, 2) |
| 50. $x - y = 2$ and (-2, 3) | 51. $y - x = -1$ and (-2, 1) |