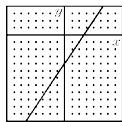


MATH 10  
LINEAR FUNCTIONS Practice

1. What is the equation of the graph shown?

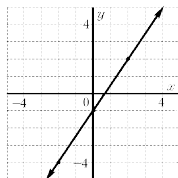


2. State the slope and the  $y$ -intercept for the line represented by  $y = \frac{1}{3}x - 3$ .

3. State the slope and the  $y$ -intercept for the line represented by  $2(x - 1) + 4y - 1 = 0$ .

4. What is the  $x$ -intercept of the line represented by  $2y = 5x - 4$ ?

5. What is the equation for the line shown?



6. The equation of a line is  $y = mx + 9$ . Determine the value of  $m$  given the line passing through the point  $A(-2, -4)$ .
7. The equation of a line is  $5x - 6y - p = 0$  and passes through the point  $H(-1, -1)$ . Determine the value of  $p$ .
8. Determine the slope of the line  $5x + 3y + 12 = 0$ .
9. In which set are the points collinear?  
a)  $D(-1, 5)$ ,  $E(-7, -1)$ ,  $F(6, 12)$     b)  $J(-2, 1)$ ,  $K(0, 0)$ ,  $L(2, -2)$     c)  $R(-3, 3)$ ,  $S(2, 1)$ ,  $T(7, -2)$
10. Determine the equation of the line with  $x$ -intercept  $-6$  and  $y$ -intercept  $-5$ .

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Graph.

11.  $y = -\frac{4}{7}x - 7$

12.  $2x + 7y = 21$

13. slope =  $-\frac{1}{7}$ , contains point  $(-7, -2)$

14. undefined slope, passes through (4,1)

Write the equation of the line in standard form.

15. slope =  $-6$ , contains point  $(-1,0)$

16. slope =  $\frac{5}{12}$ , contains point  $(-15,0)$

17. passes through  $(-3, -4)$  and  $(5, 12)$

18. contains  $(8, 1)$  and  $(-7, -5)$

19. Two perpendicular lines intersect on the  $y$ -axis. The equation of one line is  $y - 4x - 6 = 0$ . Determine the equation of the other line.

20. The line represented by  $y = 3x - 1$  and a line perpendicular to it intersect at  $R(1, 2)$ . Determine the equation of the perpendicular line.