

The Weekly Rigor

No. 211

“A mathematician is a machine for turning coffee into theorems.”

July 7, 2018

16 Problems in Finding Linear Functions

(Part 1)

PROBLEMS

1. Find the equation of the line with y -intercept 7 and slope 2.
2. Find the equation of the line with point $(1, -8)$ and slope -3 .
3. Find the equation of the line with points $(2,5)$ and $(4,7)$.
4. Find the equation of the line with x -intercept 2 and y -intercept -8 .
5. Find the equation of the line parallel to $y = -2x - 3$ that goes through $(1,1)$.
6. Find the equation of the line perpendicular to $y = \frac{1}{3}x - 4$ that goes through $(-2,7)$.
7. Find the equation of the line with x -intercept $\frac{-1}{5}$ and y -intercept 2.
8. Find the equation of the line with points $(0,0)$ and $(1,5)$.
9. Find the equation of the line perpendicular to $y = \frac{1}{2}x + 1$ that goes through $(-3,6)$.
10. Find the equation of the line with point $(0, \frac{9}{5})$ and slope $\frac{2}{3}$.

11. Find the equation of the line with points $(3, -8)$ and $(-3, 0)$.
12. Find the equation of the line with the point $(-18, 5)$ and y -intercept -3 .
13. Find the equation of the line perpendicular to $y = -x - 4$ that goes through $(1, 10)$.
14. Find the equation of the line with x -intercept 5 and y -intercept 4 .
15. Find the equation of the line with points $(2, 4)$ and $(3, 9)$.
16. Find the equation of the line perpendicular to $y = 6x - 9$ that goes through $(3, 9)$.

ANSWERS

1. $y = 2x + 7$	2. $y = -3x - 5$
3. $y = x + 3$	4. $y = 4x - 8$
5. $y = -2x + 3$	6. $y = -3x + 1$
7. $y = 10x + 2$	8. $y = 5x$
9. $y = -2x$	10. $y = \frac{2}{3}x + \frac{9}{5}$
11. $y = \frac{-4}{3}x - 4$	12. $y = -\frac{4}{9}x - 3$
13. $y = x + 9$	14. $\frac{-4}{5}x + 4$
15. $y = 5x - 6$	16. $y = -\frac{1}{6}x + \frac{19}{2}$

“Only he who never plays, never loses.”