

## Section 5.3 – Finding the Equation of a Line – The Slope-Intercept Form

### Problem Set 2

Find the equation of the line that meets the following conditions.

1. has a slope of 3 and a  $y$ -intercept of 8
2. has a slope of -2 and a  $y$ -intercept of -6
3. has a slope of  $-1/5$  and a  $y$ -intercept of 0
4. has a slope of 2.8 and a  $y$ -intercept of -3.6
5. has a slope of  $1/8$  and a  $y$ -intercept of  $1/4$
6. has a slope of -10 and a  $y$ -intercept of -18
7. passes through the points (3, 4) and (0, 1)
8. passes through the points (-4, 4) and (1, 5)
9. passes through the points (3, -3) and (5, 8)
10. passes through the points (-3, 2) and  $\left(\frac{5}{4}, -\frac{1}{4}\right)$
11. passes through the points (-3, 4) and (4, -2)
12. passes through the points (5.1, -3.6) and (-1.2, 2)

### Applications

13. **Commissions** Marcus gets paid a flat rate of \$3,500 per month plus an additional 10% for every dollars worth of equipment that he sells. Find a linear equation that describes his total salary for the month in terms of dollars that he sells.
14. **Commissions** How much does Marcus, in the previous question, have to sell to earn \$4,570?
15. **Allowance** Linda gets \$10 a week from her parents plus \$20 for every lawn that she mows during the summer. Find a linear equation that describes her total income.
16. **Allowance** Using the equation from question 15, how much would Linda make from doing 4 lawns?