

# 4.1

## Practice A

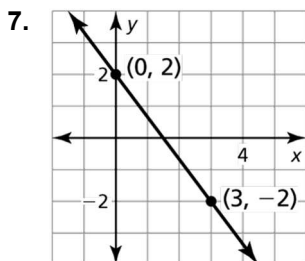
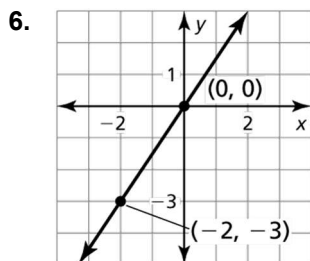
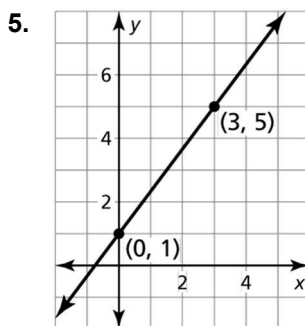
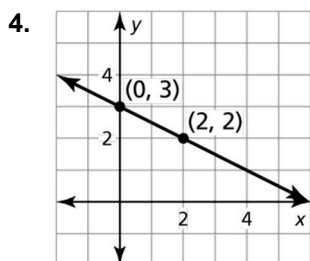
In Exercises 1–3, write an equation of the line with the given slope and  $y$ -intercept.

1. slope: 3  
 $y$ -intercept: 8

2. slope:  $-4$   
 $y$ -intercept: 0

3. slope: 0  
 $y$ -intercept:  $-2$

In Exercises 4 – 7, write an equation of the line in slope-intercept form.



In Exercises 8 – 10, write an equation of the line that passes through the given points.

8.  $(2, 3), (0, 9)$

9.  $(5, -2), (0, -2)$

10.  $(-1, 4), (0, -2)$

**In Exercises 11 – 13, write a linear function  $f$  with the given values.**

**11.**  $f(0) = 3, f(1) = 5$

**12.**  $f(0) = 9, f(2) = 4$

**13.**  $f(3) = -2, f(0) = 1$

**14.** In 2003, a gallon of gas cost \$1.75. In 2013, a gallon of gas cost \$3.50.

**a.** Write a linear model that represents the cost (in dollars) of a gallon of gas as a function of the number of years since 2003.

**b.** Use the model to predict the cost of a gallon of gas in 2023.

**15.** A T-shirt design company charges your team an initial fee of \$25 to create the team's design. Each T-shirt printed with your design costs an additional \$8.

**a.** Write a linear model that represents the total cost of purchasing your team's T-shirts with your design as a function of the number of T-shirts.

**b.** Your team has 35 members. If a T-shirt is purchased for every member, what would be the cost?