Name _____ Date _____

4.1 Practice A

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

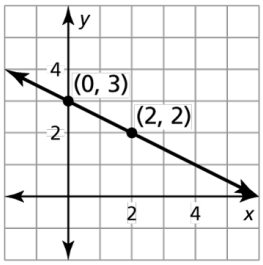
1. slope: 3
y-intercept: 8

2. slope: -4
y-intercept: 0

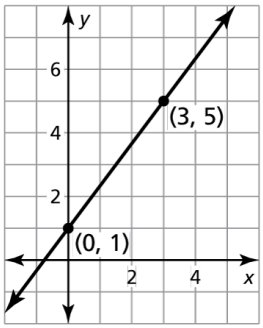
3. slope: 0
y-intercept: -2

In Exercises 4 and 5, write an equation of the line in slope-intercept form.

4.



5.



In Exercises 6–8, write an equation of the line that passes through the given points.

6. $(2, 3), (0, 9)$

7. $(5, -2), (0, -2)$

8. $(-1, 4), (0, -2)$

In Exercises 9–11, write a linear function *f* with the given values.

9. $f(0) = 3,\ f(1) = 5$

10. $f(0) = 9,\ f(2) = 4$

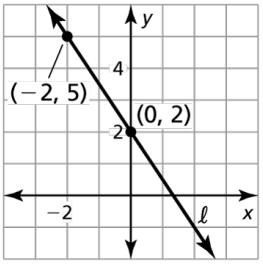
11. $f(3) = -2,\ f(0) = 1$

12. 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.

13. Line λ is a reflection in the *y*-axis of line *k*. Write an equation that represents line *k*.



Name_____ Date _____

4.1 Practice B

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

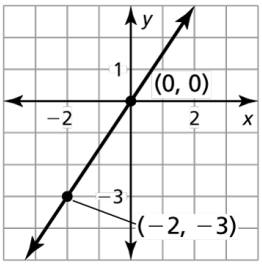
1. slope: 3
y-intercept: -9

2. slope: 0
y-intercept: $\frac{1}{3}$

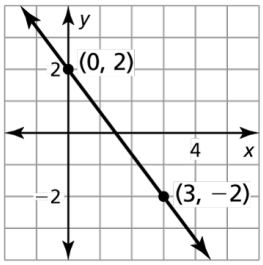
3. slope: $-\frac{2}{5}$
y-intercept: 7

In Exercises 4 and 5, write an equation of the line in slope-intercept form.

4.



5.



In Exercises 6–8, write an equation of the line that passes through the given points.

6. $(4, 0), (0, -7)$

7. $(0, -3), (-2.5, 2)$

8. $(0, 4), (-6, 1.5)$

In Exercises 9–11, write a linear function *f* with the given values.

9. $f(6) = -2, f(0) = -5$

10. $f(0) = -1, f(2) = -1$

11. $f(-4) = 3, f(0) = -2$

12. 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?

13. Line λ is a reflection in the *x*-axis of line *k*. Write an equation that represents line *k*.