LESSON 5.4 Practice C
For use with pages 311–316

Write two equations in standard form that are equivalent to the given equation.

1. $9x - 36y = 27$

2. $-7x + 6y = -13$

3. $10x - 6y = -22$

Write an equation in standard form of the line that passes through the given point and has the given slope *m*.

4. $(-8, 5),\ m = -\dfrac{3}{4}$

5. $(0, -11),\ m = \dfrac{2}{5}$

6. $(-7, -3),\ m = \dfrac{1}{8}$

Write an equation in standard form of the line that passes through the given points.

7. $(5, -1), (9, -3)$

8. $(-2, 6), (-8, -5)$

9. $(-10, 7), (-3, 4)$

10. $(-7, -3), (-2, -7)$

11. $(12, -4), (-1, 8)$

12. $(-13, 6), (8, 6)$

Write equations of the horizontal and the vertical lines that pass through the given point.

13. $(-9, -3)$

14. $(-4, 7)$

15. $(10, -4)$

Find the missing coefficient in the equation of the line that passes through the given point.

16. $Ax + 4y = 2, (3, -1)$

17. $-5x + By = -1, (-4, 7)$

18. $Ax - 6y = 20, (-8, 2)$

19. Guitar Picks You have \$5 to spend on guitar picks. You want to buy some nylon picks for \$.35 each and celluloid picks for \$.25 each.

a. Write an equation in standard form that models the possible combinations of nylon and celluloid picks you can buy.

b. Graph the equation from part (a). *Explain* what the intercepts of the graph mean in this situation.

c. List three possible pick combinations.
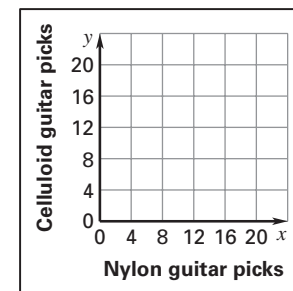
20. Marine Fuel Marine fuel is a combination of gasoline and motor oil. The standard gasoline and oil mixture is about 98% gasoline and about 2% motor oil. The "break-in" mixture for a new engine is about 96% gasoline and about 4% motor oil.

a. Write an equation in standard form that models the possible combinations of each kind of mixture you can prepare using 6 gallons of gasoline.

b. If you prepare 4 gallons of the "break-in" mixture, how much gasoline will you have for the standard mixture?

c. How much oil do you need to prepare 4 gallons of the "break-in" mixture?

d. Oil is typically sold in fluid ounces. Use the fact that 128 fluid ounces = 1 gallon to convert your answer to part (c) to fluid ounces.