Name _____ Date _____

LESSON 3.2

Practice C

For use with pages 141–146

Solve the equation.

1. $9n + 23 = 5$

2. $4y - 3 = 13$

3. $32 = 17 - x$

4. $1.3c - 2.5 = 1.4$

5. $-8.5 = 2.2m - 15.1$

6. $7.3 = 13.8 - 5b$

7. $\frac{2z}{3} - 7 = -9$

8. $\frac{p}{3.4} + 10.4 = 15.4$

9. $\frac{w}{2.5} - 1.4 = 2.3$

Write an equation for the function described. Then find the input.

10. The output of a function is 13 more than 4 times the input. Find the input when the output is -17.

11. The output of a function is 7 more than $\frac{1}{2}$ of the input. Find the input when the output is 19.

12. The output of a function is 16 less than 5 times the input. Find the input when the output is 8.5.

Solve the equation.

13. $10a - 3a = 35$

14. $-28 = -9y + 2y$

15. $24 = 3x - 9x$

16. Solve the equations $4x + 3 = 7$, $4x + 3 = 11$, and $4x + 3 = 15$. Predict the solution of the equation $4x + 3 = 19$. *Explain*.

17. **Piano Keyboards** One model of a portable keyboard, Model A, has a total of 61 black and white keys. It has five full octaves with 5 black keys in each octave. The Model B portable keyboard has 76 black and white keys. It has six full octaves with 5 black keys in each octave and one extra black key.

a. Find the number of white keys on the Model A keyboard.

b. Find the number of white keys on the Model B keyboard.

c. How many more white keys are there on the Model B keyboard than there are on the Model A keyboard?

18. **Water Tower** A town's water tower holds 1 million gallons of water. During the day, the tower is only $\frac{2}{5}$ of its full capacity. The tower will be refilled at night, when water consumption is low, using a pump that pumps water into the tower at a rate of 2000 gallons of water per minute. How long will it take to bring the tower back to full capacity? *Explain* how you got your answer. If the town had a pump that only filled the tank at 500 gallons per minute, how much longer would it take to fill the tank?