### **Common Core Review Equations and Inequalities**

#### **Multiple Choice**

Identify the letter of the choice that best completes the statement or answers the question.

1. Which equation is an identity?a. 5w + 4 - w = 6w - 2(w - 2)b. 15 - (2v + 3) = -2v - 12c. 4m - 4 = 5m + 5 - md. -5y + 6 = -5y - 4

Identify the graph of the inequality from the given description.

- - 3. The formula for converting degrees Celsius (*C*) to degrees Fahrenheit (*F*) is  $F = \frac{9}{5}C + 32$ . Solve the formula for degrees Celsius (*C*). Then find the temperature in degrees Celsius (*C*) when the temperature in degrees Fahrenheit (*F*) is 5. a. -15° C b. -24° C c. -6° C d. 0° C

Solve the inequality. Then graph your solution.

#### **Short Answer**

Solve the equation.

6. 
$$52 - 2 + 5c = 80$$

- 7. 4x + 8 = 5x + 28.  $v - \frac{1}{4} = \frac{3}{5}$ 9.  $v - \frac{1}{2} = \frac{2}{5}$ 10. 2x - 4 = 5x + 811. 53 - 7 + 4g = 82
- 12.  $\frac{3}{4}x 7 = -3$
- 13. 4(y-4) = 12
- 14.  $v \frac{1}{2} = \frac{7}{8}$
- 15. Tina can type at least 45 words per minute. Write and graph an inequality to model this situation.

#### Solve the inequality. Then graph your solution.

- **16.** –9*a* < –18
- 17.  $-\frac{1}{2}q \le 9$
- 18. A customer went to a garden shop and bought some potting soil for \$17.00 and 7 shrubs. The total bill was \$106.25. Write and solve an equation to find the price of each shrub.
- 19. Solve the equation for a.

4a + 2 = 3b - 5

### Solve the equation for the given variable.

20. dx + fy = g; x

# Write an inequality to model the situation.

**21.** Thomas earned \$44 or more.

Write an inequality for the graph.

**22.** (-10 -8 -6 -4 -2 0 2 4 6 8 10)

# **Common Core Review Equations and Inequalities Answer Section**

### **MULTIPLE CHOICE**

- 1. A
- 2. C
- 3. A
- 4. B
- 5. D

# SHORT ANSWER

