## Common Core Review Equations and Inequalities

## Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.
$\qquad$ 1. Which equation is an identity?
a. $5 w+4-w=6 w-2(w-2)$
b. $15-(2 v+3)=-2 v-12$
c. $4 m-4=5 m+5-m$
d. $-5 y+6=-5 y-4$

Identify the graph of the inequality from the given description.
$\qquad$ 2. $x$ is at least -0.5 .
a.

c.

b.

d.

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. $-15^{\circ} \mathrm{C}$
b. $-24^{\circ} \mathrm{C}$
c. $-6^{\circ} \mathrm{C}$
d. $0^{\circ} \mathrm{C}$

Solve the inequality. Then graph your solution.
4. $c-5>-1$
a. $c<-4$

C. $c>-6$

b. $c>4$

d. $c>-4$


## Solve the equation.

- 5. ${ }_{7}^{5} x=30$
a. 34
b. 25
c. 51
d. 42


## Short Answer

## Solve the equation.

6. $52-2+5 c=80$
7. $4 x+8=5 x+2$
8. $v-\frac{1}{4}=\begin{aligned} & 3 \\ & 5\end{aligned}$
9. $v-\frac{1}{2}=\begin{aligned} & 2 \\ & 5\end{aligned}$
10. $2 x-4=5 x+8$
11. $53-7+4 g=82$
12. ${ }_{4}^{3} x-7=-3$
13. $4(y-4)=12$
14. $v-\frac{1}{2}=\begin{aligned} & 7 \\ & 8\end{aligned}$
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. $-\frac{1}{2} q \leq 9$
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 $a$.
$4 a+2=3 b-5$

Solve the equation for the given variable.
20. $d x+f y=g ; x$

Write an inequality to model the situation.
21. Thomas earned $\$ 44$ or more.

Write an inequality for the graph.
22. $\underset{-10}{\leftrightarrows}$

## Common Core Review Equations and Inequalities Answer Section

## MULTIPLE CHOICE

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

## SHORT ANSWER

6. 6
7. 6

17
20
9. $\begin{gathered}9 \\ 10\end{gathered}$
10. -4
11. 9
12. $5_{3}^{1}$
13. 7
14. $1 \begin{aligned} & 3 \\ & 8\end{aligned}$
15. $t \geq 45$

16. $a>2$

17. $q \geq-18$

18. $7 p+\$ 17.00=\$ 106.25 ; p=\$ 12.75$
19. $\frac{3 b-7}{4}$
20. $x=\frac{g-f y}{d}$
21. $t \geq 44$
22. $x<1$

