

## Chapter 4 Practice Test

### Multiple Choice

For each question, select the best answer.

1. To solve the equation  $x + 15 = -2$  for  $x$ :
- A multiply by 15      B divide by 15  
C subtract 15      D add 15

2. The solution for  $3y + 8 = -1$  is:
- A  $y = 3$       B  $y = -3$   
C  $y = 9$       D  $y = -9$

3. The solution for  $\frac{r-2}{3} = 7$  is:
- A  $r = -23$       B  $r = 23$   
C  $r = 19$       D  $r = -19$

4. When  $y$  is isolated, the equation  $x = 2(y - 1) + 8$  is written:
- A  $y = \frac{x+6}{2}$       B  $y = \frac{x-6}{2}$   
C  $y = 2(x-6)$       D  $y = 2(x+6)$

5. The line  $5x - y - 3 = 0$ , written in  $y$ -intercept form is:
- A  $y = 5x - 3$       B  $y = 5x + 3$   
C  $y = -5x - 3$       D  $y = -5x + 3$

### Short Response

6. Solve each equation.
- a)  $4x = -28$       b)  $5p + 2 = -13$   
c)  $2a - 1 = 7$       d)  $0 = 3s - 12$   
e)  $-8x = 0$       f)  $0 = y + 1$

7. Solve each equation.
- a)  $\frac{r-1}{6} = 3$       b)  $\frac{k+2}{5} = -4$   
c)  $\frac{1}{4}(8-x) = 0$       d)  $\frac{1}{2}(9-x) = 1$

8. Write each equation in slope  $y$ -intercept form.

- a)  $5x - y - 7 = 0$   
b)  $2x - y - 8 = 0$   
c)  $x + y + 9 = 0$   
d)  $4x + 2y + 6 = 0$

9. If the line  $3x + 5y + C = 0$  passes through  $(0, 4)$ , determine the value of  $C$ .

10. If the line  $x + By + 3 = 0$  passes through  $(0, -2)$ , determine the value of  $B$ .

### Extended Response

11. Tom has \$3.25 to spend on pencils. Each pencil costs \$0.25.
- a) Write an equation showing the relationship between the total cost in dollars,  $C$  and the number of pencils purchased,  $n$ .
- b) If he wanted to buy 9 pencils, how much money would he need to use?
- c) If Tom only had \$2.25, how many pencils can he buy?
12. Rachelle got a bank loan of \$650 at an annual interest rate of 7.5%. The amount owed is represented by the equation  $A = 650 + (0.075 \times 650)n$ , where  $A$  is the total amount Rachelle owes, and  $n$  is the number of years.
- a) What will Rachelle owe after 4 years?
- b) What will Rachelle owe after 10 years?