Chapter 4 Practice Test

Multiple Choice

For each question, select the best answer.

1. Which is the solution for $k - 5 = -9$?

   A $k = 4$ **B** $k = 14$

   C $k = -14$ **D** $k = -4$

2. Which equation has the root $p = -6$?

   A $4p - 10 = 14$

   B $p + 6 = -12$

   C $3p + 8 = -10$

   D $p - 4 = 2$

3. The formula for perimeter of a triangle is $P = a + b + c$. Which is the formula rearranged to isolate b?

   A $b = P - a - c$

   B $b = \dfrac{P}{a + c}$

   C $b = \dfrac{P - a}{c}$

   D $b = \dfrac{P - c}{a}$

4. Lauren is twice Kristy's age. The sum of Lauren and Kristy's ages is 51. Which equation represents the sum of their ages?

   A $K + K + 2 = 51$

   B $K + 2K + 2 = 51$

   C $2K = 51$

   D $K + 2K = 51$

Short Response

5. Solve.

   a) $s - 5 = 6$

   b) $\dfrac{u}{-2} = 7$

   c) $3z - 1 = 8$

   d) $3 + 5m + 6m = 25$

   e) $2(k - 3) = 4k - 2$

   f) $4(r - 1) = 10 + (r - 5)$

6. Find each root.

   a) $\dfrac{2a + 3}{2} = \dfrac{3a - 2}{-10}$

   b) $\dfrac{1}{5}(3p + 2) = 1$

7. The length of a rectangle is 3 cm more than its width, w.

   a) Write an expression for the perimeter of the rectangle in terms of its width.

   b) Rearrange the formula to isolate w.

   c) The perimeter of the rectangle is 26 cm. What are the dimensions of the rectangle?

Extend

Show all your work.

8. Find the root, then check.

$$\dfrac{3(t + 2)}{4} = \dfrac{2t + 5}{2}$$

9. Chad earns $2 per hour more than Colton and $1.50 per hour less than Alexis. Together, they all earn $26.50 per hour. What is each person's hourly wage?

10. The sum of three consecutive odd integers is -39. Find the numbers.