LESSON 8 Review Quiz

Take the quiz and record your score on your grading sheet. You may use a calculator unless otherwise specified. After the quiz, make sure you review what you missed.

1. $5 + 2^3 \div 4 \times (6 - 7)^2$

What is the value of the expression above? Do not use a calculator.

2. $3(x - 4) + 2 = 6 - x$

Given the equation above, what is the value of $8 - x$?

3. $kx - 2 = 2(x - 1) + x$

If the equation above is an identity, what is the value of k ?

4. Which equation has no solution?

A) $\frac{1}{2} + \frac{1}{4}x = \frac{3}{4}$

B) $\frac{1}{6} + \frac{1}{4}x = \frac{5}{4}x - x$

C) $4\left(\frac{1}{2}x + \frac{1}{4}\right) = 2x + 1$

D) $\frac{1}{2}(4x - 1) + 2x = \frac{1}{4}$

5. $3x - 4(x - 1) > -8$

Solve the inequality above.

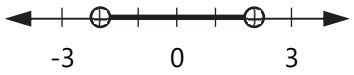
6. $-8 \leq 1 - 3x \leq 7$

Given the inequality above, what is the greatest possible value of x ?

7. $5|x + 2| - 4 = 1$

What is the sum of the solutions to the equation above?

8.



Which inequality is graphed above?

A) $|x| < 2$ B) $|x| > 2$

C) $|x| \leq 2$ D) $|x| \geq 2$

9. The price of a notebook rose by 10% to $\$2$. Which equation can be used to find the original price, p, of the notebook?

A) $0.1p = 2$ B) $0.9p = 2$

C) $1.1p = 2$ D) $p + 0.1 = 2$

10. The width of a rectangle is 5 centimeters. What is the maximum possible length of the rectangle if the perimeter must be at least 20 centimeters and at most 30 centimeters?