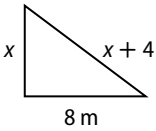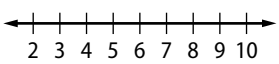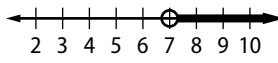# Test, Form 2A

Write the letter for the correct answer in the blank at the right of each question.

1. What is the solution to the equation $-6.5x = 59.8$?

    A. $x = -9.2$ **B.** $x = -1.1$ **C.** $x = 53.3$ **D.** $x = 66.3$

    1. _____**A**_____

2. Taylor attached 24 ribbons to a jacket in $\frac{4}{5}$ hour. At this rate, how many ribbons could he attach in one hour?

    F. 19 ribbons   **H.** 96 ribbons

    G. 30 ribbons   **J.** 120 ribbons

    2. _____**G**_____

3. The solution to which equation is graphed at 5 on the number line?

    A. $1.8x - 4.45 = 4.55$ **C.** $2.4x + 10.25 = -1.75$

    B. $2.1x + 6.45 = -4.05$ **D.** $3.6x + 2.25 = -15.75$

    3. _____**A**_____

4. An annual pass to a zoo costs $43.25 per person. If the park sold $3762.75 of passes, which equation can you use to find the total number of annual passes purchased?

    F. $43.25 + p = 3762.75$ **H.** $43.25 - p = 3762.75$

    G. $43.25p = 3762.75$ **J.** $3762.75p = 43.25$

    4. _____**G**_____

5. Of the following equations, which has the correct solution?

    A. $5x + 7 = 13; x = -4$

    B. $20x - 4 + 10 = -1; x = -\frac{1}{4}$

    C. $12x - 8x - 5 = -4; x = \frac{1}{4}$

    D. $\frac{4}{2}x - 4 = 2; x = \frac{1}{4}$

    5. _____**C**_____

6. The perimeter of the triangle shown is 24 meters. What is the length of the shortest side of the triangle?

    F. 2 meters   **H.** 8 meters

    G. 6 meters   **J.** 10 meters

    6. _____**G**_____

7. Solve $0.5(8x - 12) = -10$.

    A. $x = -4$ **B.** $x = -1$ **C.** $x = 1$ **D.** $x = 4$

    7. _____**B**_____

Test, Form 2A   *(continued)*

8. An artist creates 9 identical ceramic vases. Each vase contains some
   clay and 1.5 pounds of glass. The artist uses a total of 49.5 pounds
   of clay and glass to make the vases. Each vase contains how many
   pounds of clay?

   F. 4 pounds   **G.** 6 pounds   **H.** 8.5 pounds   **J.** 12.5 pounds   8. _____F_____

9. Four students solved the equation $\frac{a-7}{10} = \frac{a-2}{8}$, but only one of
   their solutions checked. What is the correct solution to the equation?

   A. $a = -18$ **B.** $a = 3$ **C.** $a = 11$ **D.** $a = 18$ 9. _____A_____

10. Three times the quantity $h + 4$ equals four times the quantity $h - 1$.
    What value of h makes this sentence true?

    F. $h = 3$ **G.** $h = 5$ **H.** $h = 8$ **J.** $h = 16$ 10. _____J_____

11. The sentence, *six less than the product of four and a number is less
    than 0.5 times the opposite of the number*, translates to which
    mathematical statement?

    A. $4n - 6 = -0.5n$ **C.** $4n - 6 < -0.5n$

    B. $6 - 4n < \frac{0.5}{n}$ **D.** $6 - 4n > \frac{0.5}{n}$ 11. _____C_____

12. The cost of a tank of gas at \$4.18 per gallon was at most \$58.
    Which inequality can be used to find out how many gallons
    of gas were purchased?

    F. $4.18g < 58$ **H.** $4.18g > 58$

    G. $4.18g \geq 58$ **J.** $4.18g \leq 58$ 12. _____J_____

13. Maria earns \$8 per hour plus a 5% commission on the price
    of each item she sells. She wants to work 15 hours each week, and
    earn at least \$200. Which inequality and solution shows the total
    weekly sales she must make to reach her goal?

    A. $(8)(15) + 0.50s \leq 200, s \leq 1600$

    B. $(8)(15) + 0.05s \geq 200, s \geq 1600$

    C. $(8)(15)(0.5)s \leq 200, s \leq 60$

    D. $(8)(15)(0.5)s \geq 200, s \geq 60$ 13. _____B_____

14. Solve and graph the solution to the inequality: $-4z + 8 < -27 + z$.

    14. $z > 7$;

15. The sum of an integer and the next greater integer is at most 13.
    Write an inequality to find the lesser integer. Then solve for the
    lesser integer.

    $n + n + 1 \leq 13$;
    15. $n \leq 6$