Intermediate Algebra Student Self Assessment

1. Find the value of 3x – 4y if x = -2 and y = 5

2. Last December, the temperature on a certain day rose from (-7) degrees Fahrenheit to 5 degrees above zero Fahrenheit. How much did the temperature rise altogether that day?

3. Without a calculator calculate: $24 \div \frac{3}{4} - 2 \cdot 4$

4. What is the slope and y-intercept of the graph? Sketch a graph of y = 2x + 3

5. What is the slope of the line that goes through the points (1, 4) and (-1,-2)?

6. A 42-inch wire is to be cut into two pieces. One piece must be exactly twice as long as the other piece. How long should the shorter piece be?

7. Solve for x: 2(x-3) = 3x + 5

8. Multiply: $3x^2(5x^3 - 2x + 7)$

9. The length of a rectangular bed is 2 feet less than 2 times its width. Find the length of the bed if the perimeter is 32 feet.

10. Simplify the expression: $\frac{1}{2} - \frac{3}{8} + (-5)$

11. Solve for B: A = BC + D

12. Evaluate the algebraic expression $\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ when a = 2, b = -3, and c = -2

13. If 5 gallons of stain are needed to stain 2 wooden decks, how many gallons are needed for 5 decks?

14. Simplify: $(5x^3y^4)^2$

15. Everything in the hardware store is on sale for a 25% discount. What would a hammer that was originally priced at $16.90 cost on sale?