**Answers to Algebra 2 L1.2 Transformations (Translations & Reflections) Pg 16, #3-16, 33, 37-40**

**3.** $g(x) = x - 1$

**4.** $g(x) = x$

**5.** $g(x) = |4x + 3|$

**6.** $g(x) = 2x - 3$

**7.** $g(x) = 4 - |x - 2|$

**8.** $g(x) = |4x| + 6$

**9.** $f$ could be translated 3 units up or 3 units right.

**10.** translate $f$ up 12,000 units; 3 weeks

**11.** $g(x) = 5x - 2$

**12.** $g(x) = -\frac{1}{2}x + 3$

**13.** $g(x) = |6x| - 2$

**14.** $g(x) = |-2x - 1| + 3$

**15.** $g(x) = -3 + |-x - 11|$

**16.** $g(x) = x + 1$

**33.** Translating a graph to the right requires subtraction, not addition; $g(x) = |x - 3| + 2$

**37.** The graph has been translated 6 units left; $A = 9$

**38.** The graph has been translated 5 units up; $A = 9$

**39.** The graph has been reflected in the $x$-axis; $A = 16$

**40.** The graph has been reflected in the $y$-axis; $A = 25$