



Determine

$$F(-1.8) =$$

$$G(-1.4) =$$

$$F(1.2) =$$

$$G(3.6) =$$

$$F(x) = 22$$

$$G(x) = -6$$

$$F(G(0.6)) =$$

$$G(F(-2.2)) =$$

$$F(G(x)) = 2$$

$$G(F(X)) = -2$$

Problems:

1. If a golf ball is hit a distance of 340 feet and reaches a maximum height of 80 feet, determine the equation that defines the path of the ball. What is the height of the ball when 300 feet from the tee?
2. If a quadratic function is defined by the equation  $y = -16x^2 + 34x - 12$ , determine the maximum height and when the object reaches this maximum height.
3. If a ball is hit at a height of 3 feet from the ground and reaches a maximum height of 40 feet when it is 200 feet from home plate, will this ball clear a fence that is 18 feet high and located 375 feet from home plate.
4. If the sum of two numbers is 80, determine the two numbers that would yield a maximum product.
5. A golf ball is hit from the top of cliff and follows the path of half of a parabola. The height of the cliff is 400 feet and the ball lands 500 feet from the base. Determine the equation that describes its path and how high the ball is when 300 feet from the base.