Exponential Functions 8/3

Graph the following exponential functions

1) y=3x 2) y=5x 3) y=10(3)x

4) 5(2)x 5) y=-2(3)x 6) y=-4(2)x

7)If a golf ball is dropped from a height of 27 feet, the function f(x) = 27(⅔)x gives the height in feet of each bounce, where x is the bounce number. What will be the height of the 4th bounce?

8) Suppose the depth of a lake can be described by the function y=334(0.976)x, where x represents the number of weeks from today. Today, the depth of the lake is 334ft. What will the depth be in 6 weeks? Round your answer to the nearest whole number.

9) A ball rolling down a slope travels continuously faster. Suppose the function y=1.3(1.41)x describes the speed of the ball in inches per minute. How fast will the ball be rolling in 15 minutes? Round your answer to the nearest hundredth.

10) Your employer offers 2 salary plans. With plan A, your salary is f(x)=10,000(2x), where x is the number of years you have worked for the company. With plan B, your salary is g(x)=10,000(2)x. Which plan would you choose? Why?

11) Look at the pattern. How many squares will there be in the 50th stage? Write an equation to show how you found your answer.

