**Growth & Decay, Average Value, Slope Fields, Separable**

**Equations, and Solving for C Quiz**

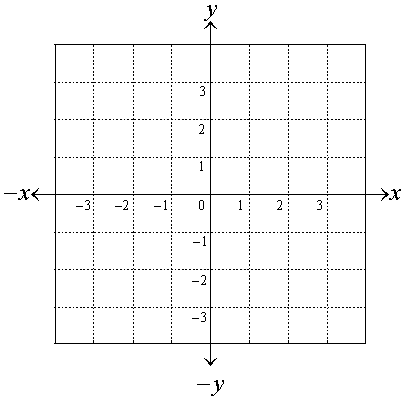
1.) The rate of change of y is proportional to y. When t=0, y=3. When t=2, y=6. What is the value of y when t=4?

2.) The population of Antarctica was 1,000 in the year 2000. Global Warming made Antarctica a warmer, more attractive place to live so the population increased to 3,000 in 2003. What will the population be in 2007?

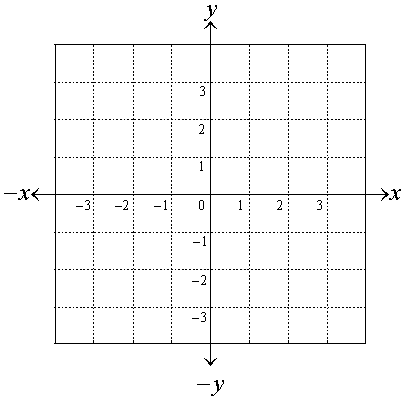
3.) Find the average value of the function y= x+4 on the interval [-1, 2].

4.) What is the average value of on the interval [2,4].

5.).Draw and label a slope field for the given differential equation on the eight points: (1,0), (2,0), (1,1), (1,-1), (-1,0),(-2,0), (-1,1), (-1,-1)

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7.) . Find an explicit expression.

8.) . Find an explicit expression.

9.) , when f(2)=3.

10. , when f(0)=