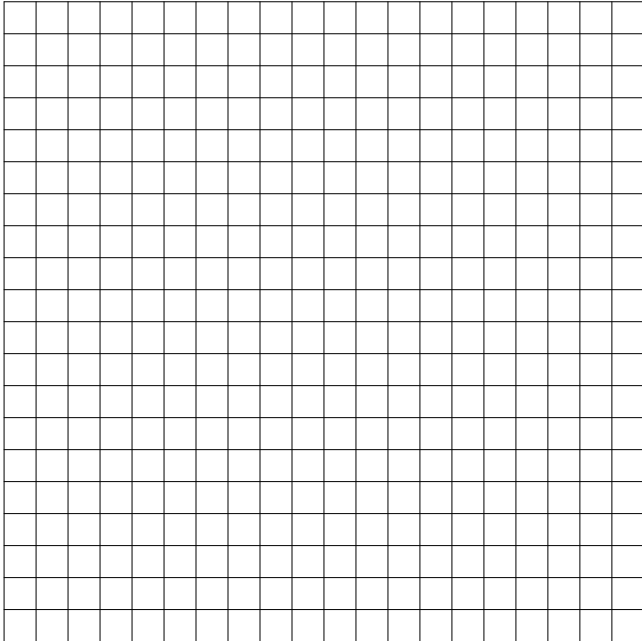


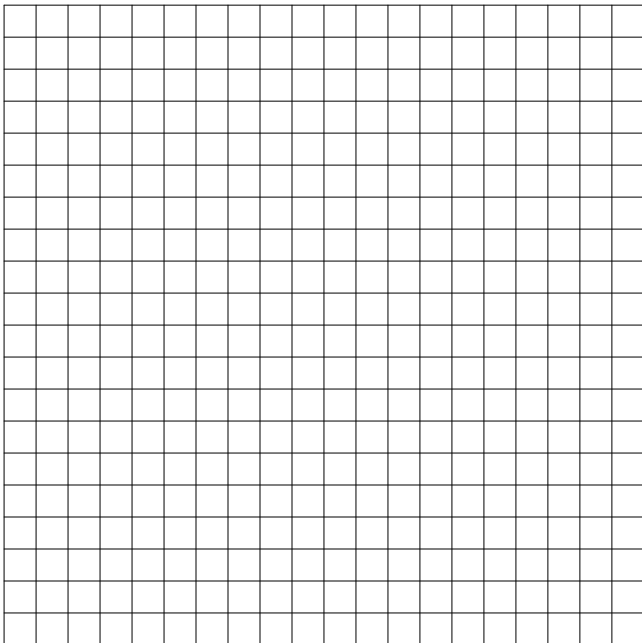
Calculus Worksheet #3 Unit 12 page 1 _____

In each of the following problems, you are given a function $y = f(x)$ and two values of x , $x = a$ and $x = b$. You are to find the length of the graph of $y = f(x)$ from the point $(a, f(a))$ to the point $(b, f(b))$. In each case, draw a graph showing the 'curve' from $x = a$ to $x = b$. Express your answers rounded to 3 significant figures.

1. $y = f(x) = 2x - 3$; $a = -1$; $b = 4$.



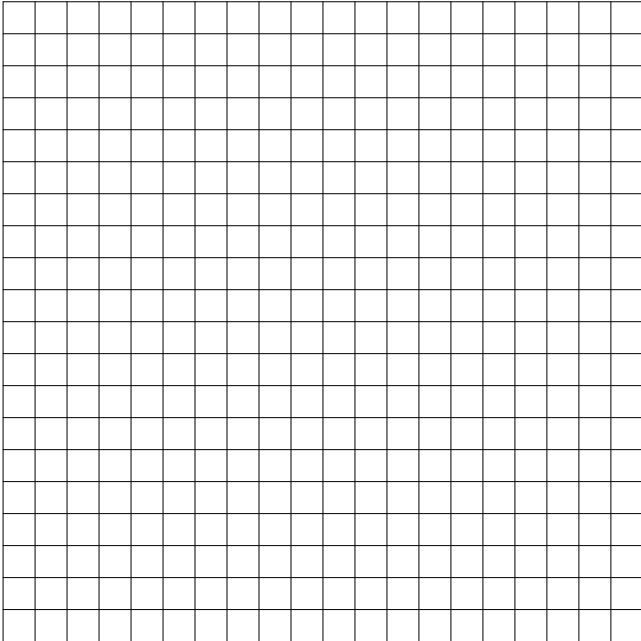
2. $y = f(x) = x^2 - 4$; $a = -2$; $b = 3$.



Calculus Worksheet #3 Unit 12 page 2

In each of the following problems, you are given a function $y = f(x)$ and two values of x , $x = a$ and $x = b$. You are to find the length of the graph of $y = f(x)$ from the point $(a, f(a))$ to the point $(b, f(b))$. In each case, draw a graph showing the 'curve' from $x = a$ to $x = b$. Express your answers rounded to 3 significant figures.

3. $y = f(x) = x^3$; $a = -2$; $b = 2$.



4. $y = f(x) = \sin x$; $a = 0$; $b = 2\pi$.

