

MATH 124A - Quiz 4 - November 8, 2001

YOUR NAME:

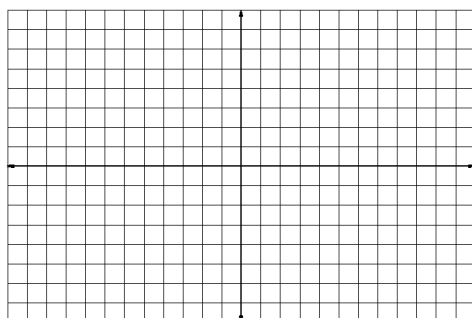
this SECTION:

1. Consider the function given by

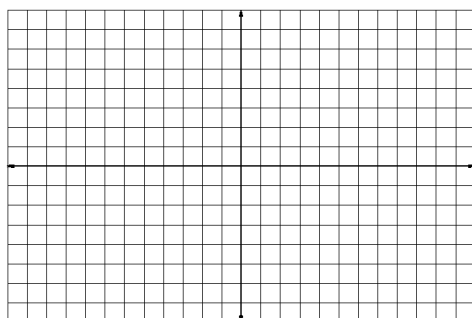
$$f(x) = \begin{cases} x^2 \cos \frac{\pi}{3}x & \text{if } -5 \leq x < 0 \\ \frac{1}{2}x^3 & \text{if } 0 \leq x < 2 \\ 6x - 2 & \text{if } x \geq 2 \end{cases}$$

What is the domain of f ?

Graph the function f below.



Graph the derivative of f below.



Over →

Recall: In order for a function f to have a derivative at a point $x = a$, it must be continuous at a and the limit defining the derivative at a must exist.

What is the derivative of f ? Be sure to indicate where the derivative is defined, and where it is not.