

Intro to Derivatives

Determining the formula for the slope of any tangent line to a curve

$$m = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$$

1. $f(x) = \frac{1-x}{2+x}$

2. $f(x) = x^4$

3. $f(x) = x^3 - x^2 + 2x$

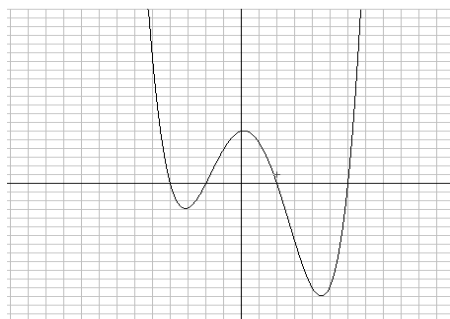
4. $f(x) = \sqrt{x}(1-x)$

5. $f(x) = x^2 + \frac{1}{x^2}$

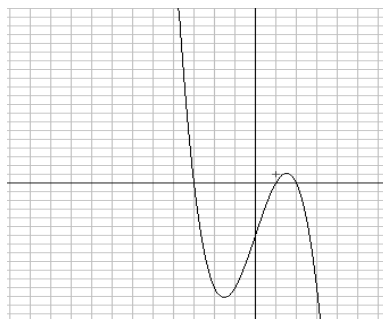
6. $f(x) = \frac{x^2 + 4x + 3}{\sqrt{x}}$

Given the graph of a function sketch the graph of the slope function

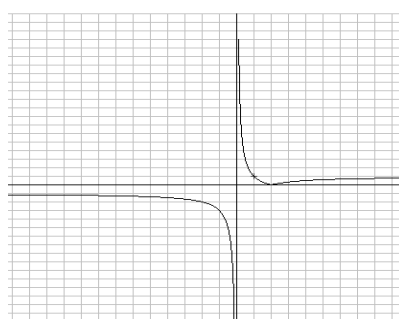
1.



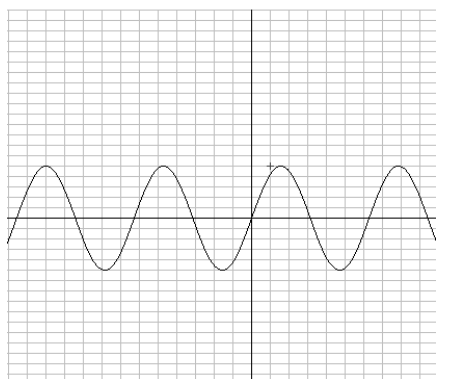
2.



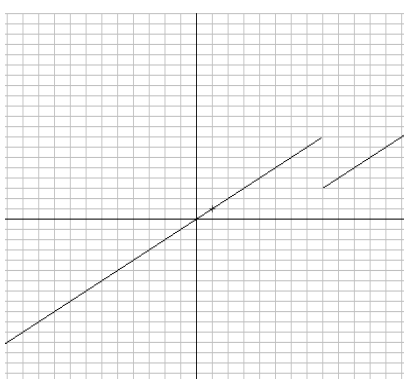
3.



4.



5.



6.

