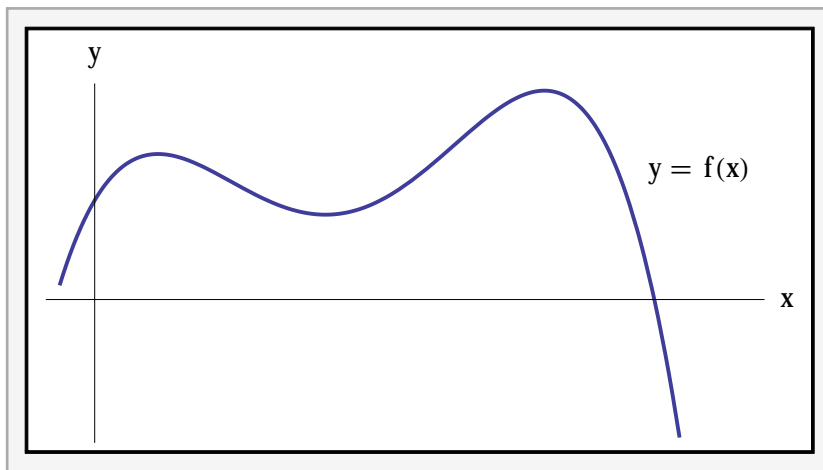


2.2 The Derivative at a Point

Name:

Date:

P 12. Label points $A, B, C, D, E,$ and F on the graph of $y = f(x)$ in the figure below.



- (a) Point A is a point on the curve where the derivative is negative.
- (b) Point B is a point on the curve where the value of the function is negative.
- (c) Point C is a point on the curve where the derivative is largest.
- (d) Point D is a point on the curve where the derivative is zero.
- (e) Points E and F are different points on the curve where the derivative is about the same.

P 23. If g is an odd function and $g'(4) = 5$, what is $g'(-4)$?

P 39. Evaluate

$$\lim_{h \rightarrow 0} \frac{\sqrt{4+h} - 2}{h}.$$

P 50. Find an equation of the tangent line to the graph of

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

at $(1, 1)$.

P 52. Explain what is wrong with the statement:

“The derivative of a function $f(x)$ at $x = a$ is the tangent line to the graph of $f(x)$ at $x = a$.”