

Derivative Properties

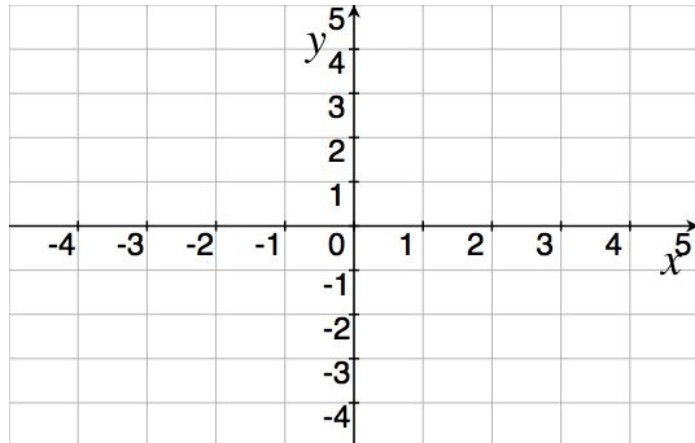
Note: a personal copy of this worksheet may be used during the quiz next Tuesday.
Recall some of the properties you already discovered:

1. Let $\alpha(x) = 3.1$.

(a) Draw the graph of α .

(b) Sketch $\alpha'(x)$ on the same axis.

(c) Find $\alpha'(x)$ algebraically.



Generalize your above work and finish the following sentence:

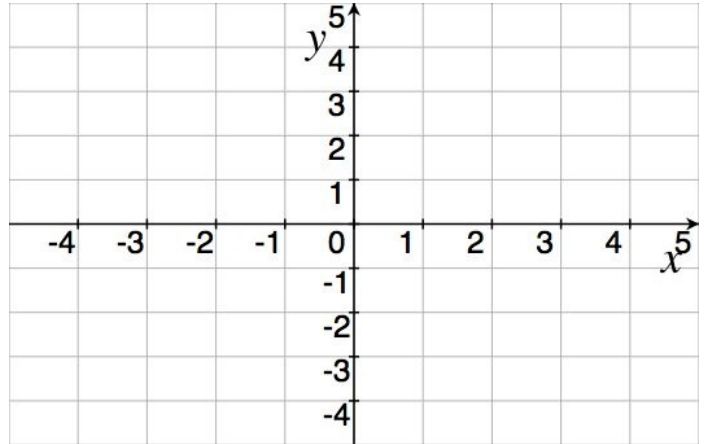
If $f(x) = k$ for some constant k , then $f'(x) =$

2. Let $\beta(x) = -2.7x + 4$.

(a) Draw the graph of β .

(b) Sketch $\beta'(x)$ on the same axis.

(c) Find $\beta'(x)$ algebraically.



Generalize your above work and finish the following sentence:

If $g(x) = mx + b$ for constants m and b , then $g'(x) =$