7.3 Calculator differentiation (12.1 IB SL)

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Drui

Graphing functions and their derivatives

TI-84

Graphing functions and their derivatives

GeoGebra and Desmos

GQ: How do we use a calculator for calculus?

- CCSS: MP 4 Use technology appropriately
- Do Now: Graph $f(x) = \frac{1}{4}x^3 - 3x$ (on your calculator). What is the derivative at $x = 4$?
- Lesson: TI-84 derivative function (p. 208)
- Homework:

Graphing functions and their derivatives

The TI-84 will calculate the derivative of a function at a point.

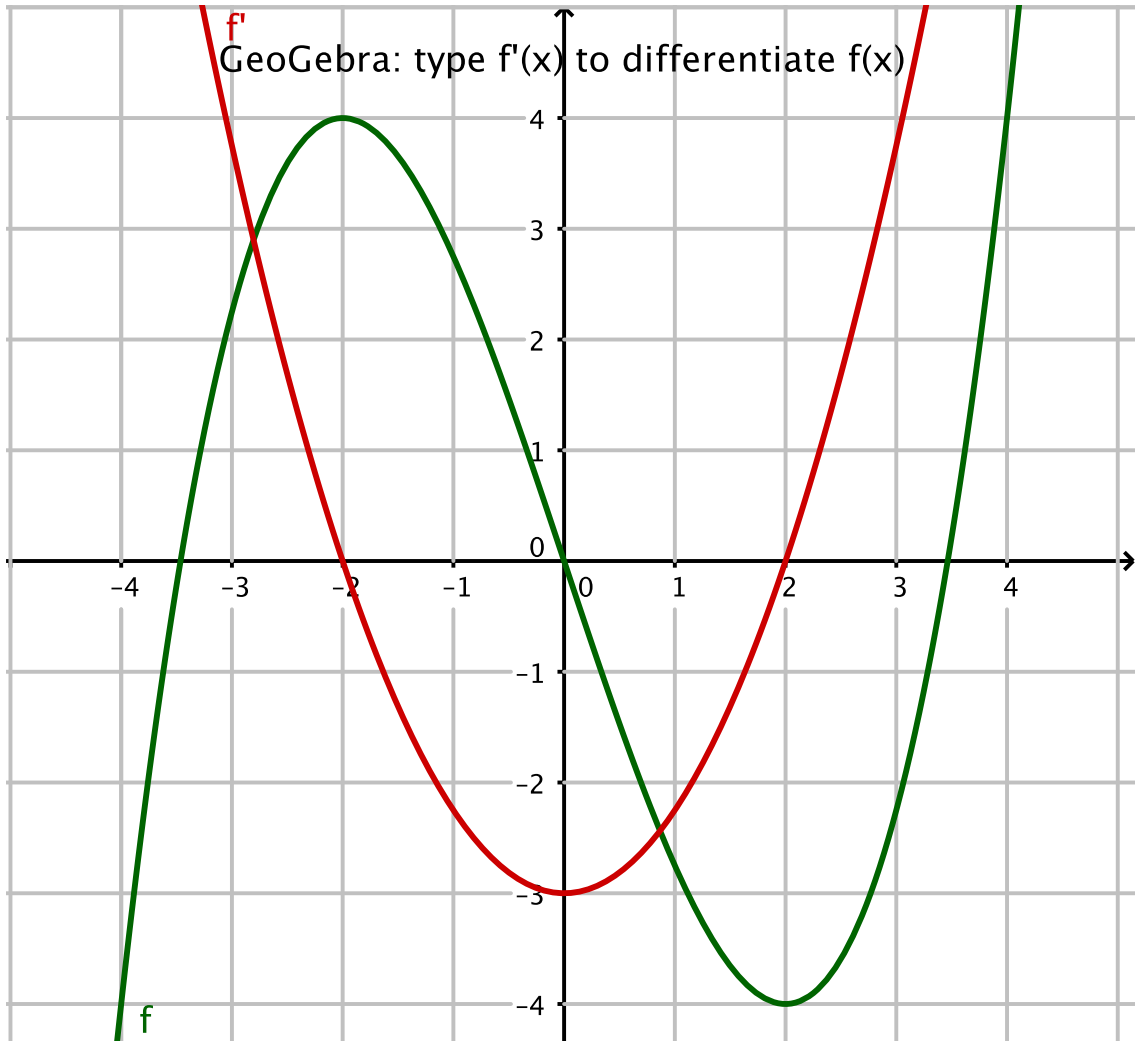
MATH $\rightarrow$ 8:nDeriv($\rightarrow$

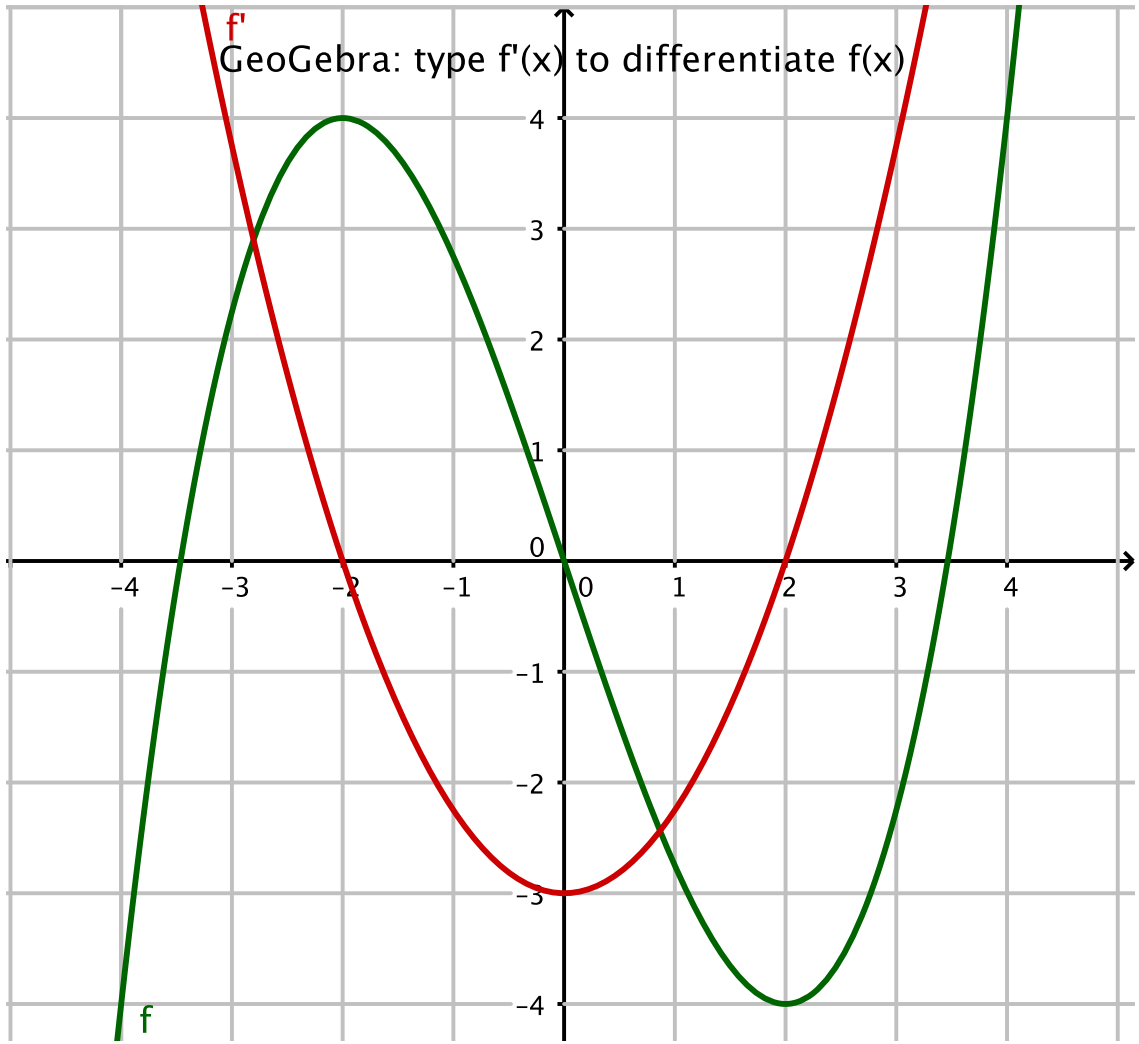
$$\frac{d}{d\square}(\square)|_{\square=\square}$$

$$\frac{d}{dX}(\frac{1}{4}X^3 - 3X)|_{X=4}$$

Graphing functions and their derivatives

GeoGebra and Desmos will differentiate a function and graph it. (type "f prime of x")



Graphing functions and their derivatives

If we plot $(4, f'(4)) = (4, 9)$ on which curve will it be, the red or green?