

1. [-/4 Points]

DETAILS

SCALCET9 3.10.001.MI.SA.

This question has several parts that must be completed sequentially. If you skip a part of the question, you will not receive any points for the skipped part, and you will not be able to come back to the skipped part.

Tutorial ExerciseFind the linearization $L(x)$ of the function at a .

$$f(x) = x^3 - x^2 + 8, \quad a = -3$$

[Click here to begin!](#)

2. [-/1 Points]

DETAILS

SCALCET9 3.10.001.MI.

Find the linearization $L(x)$ of the function at a .

$$f(x) = x^3 - x^2 + 5, \quad a = -3$$

 $L(x) =$ **Need Help?**[Watch It](#)[Master It](#)

3. [-/1 Points]

DETAILS

SCALCET9 3.10.002.

Find the linearization $L(x)$ of the function at a .

$$f(x) = e^{4x}, \quad a = 0$$

 $L(x) =$

4. [-/4 Points]

DETAILS

SCALCET9 3.10.005.

Find the linear approximation $L(x)$ of the function $f(x) = \sqrt{1-x}$ at $a = 0$.

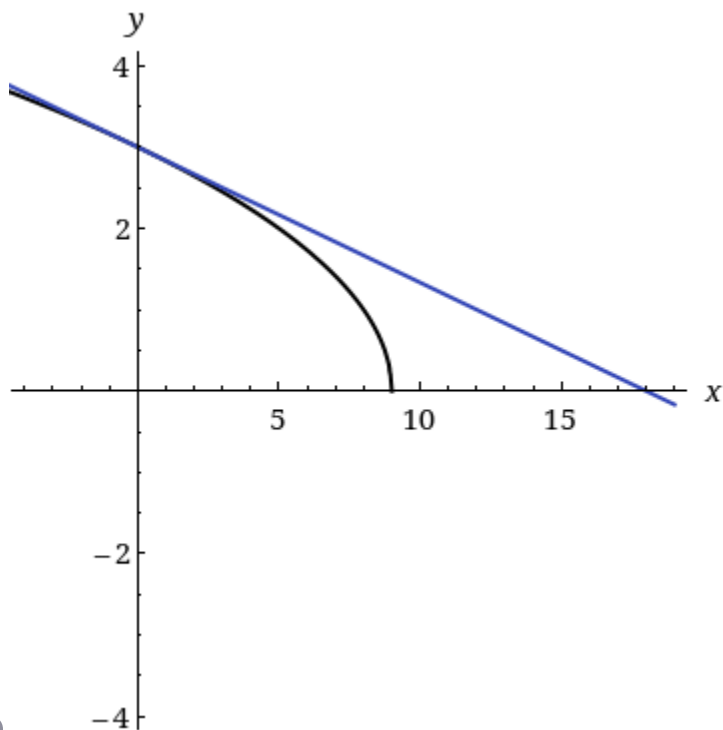
 $L(x) =$

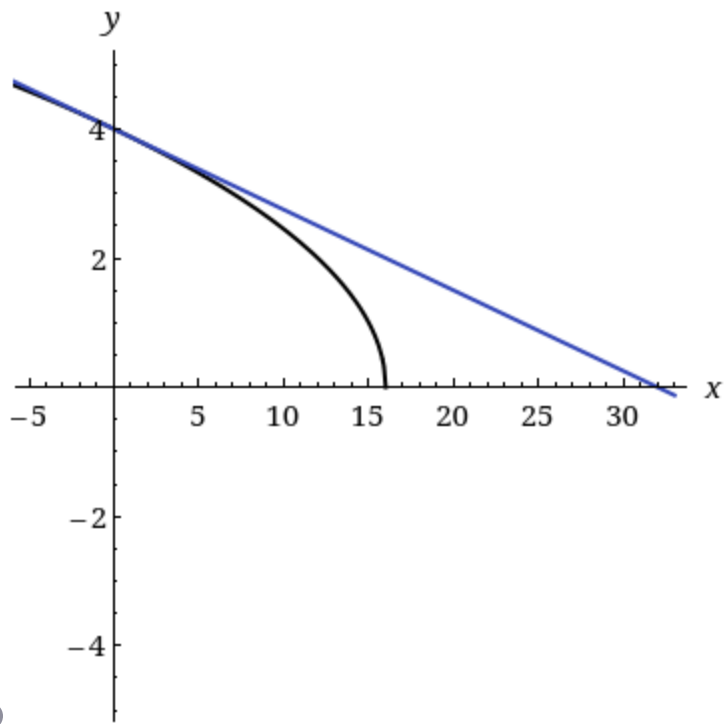
Use $L(x)$ to approximate the numbers $\sqrt{0.9}$ and $\sqrt{0.99}$. (Round your answers to four decimal places.)

$\sqrt{0.9} \approx$

$\sqrt{0.99} \approx$

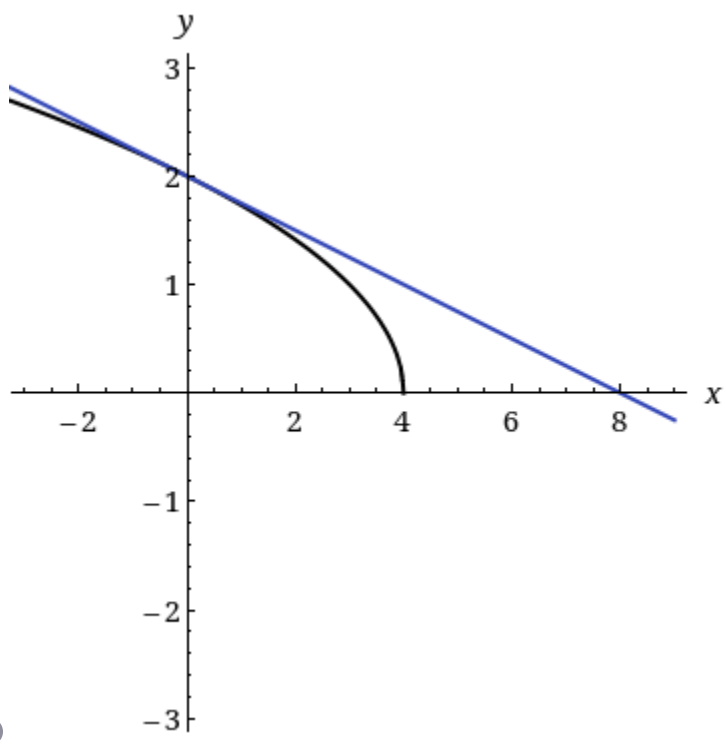
Use technology to graph f and the tangent line in the same viewing window.





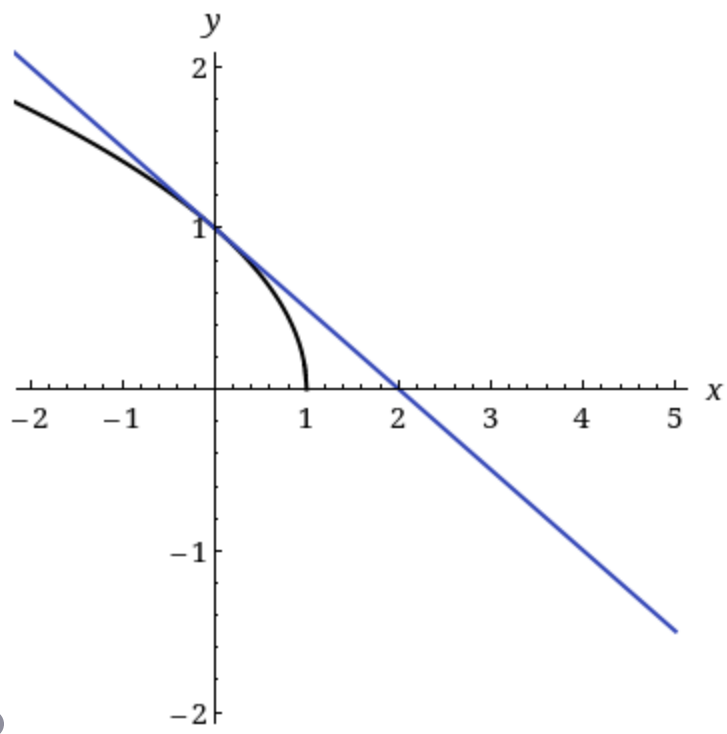
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Need Help?

Watch It