

## 7.2 Area Between Curves

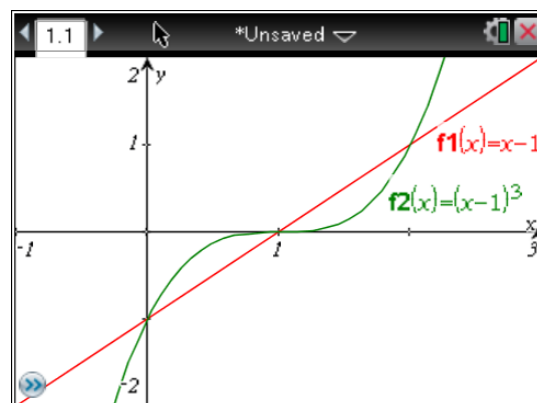
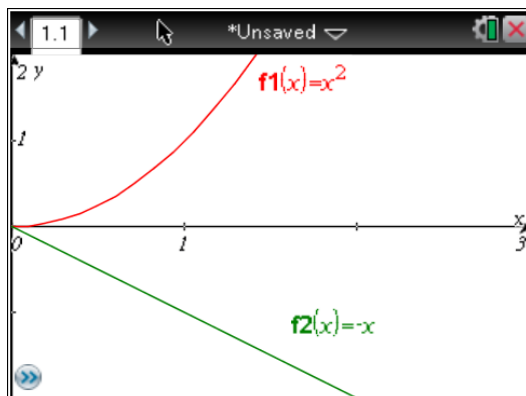
definition:

$$f(x) \geq g(x)$$

$$f(x) \geq g(x)$$

$$f(x) \leq g(x)$$

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Find the area of the region between:  $y = 3x + 4$  &  $y = x^3$   
from  $x = -1$  to  $x = 2$

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Find the area of the region between:  $y = \sec^2 x$  &  $y = \sin x$

between  $x = 0$

$$x = \frac{\pi}{4}$$

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Find the area of the region enclosed by the parabola  $y = -3x^2 + 5$  and the line  $y = 2x$

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Find the area of the region bounded above by  $y = \sqrt{x}$  and below by the x-axis and the line  $y = x - 2$

- a) by integrating with respect to  $x$
- b) by integrating with respect to  $y$

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