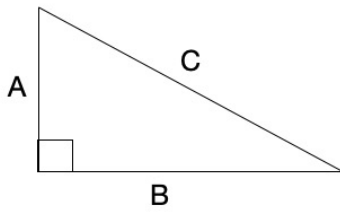


Pythagorean Theorem

Simplifying Radicals

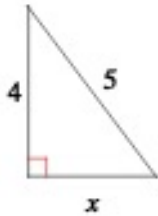


Key Concept to Remember

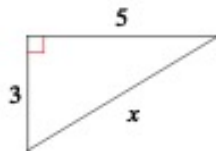
$$(\sqrt{x})^2 = x$$

$$A^2 + B^2 = C^2$$

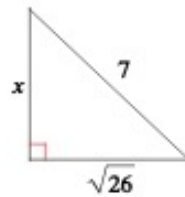
Examples



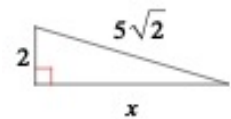
$$A^2 + B^2 = C^2$$



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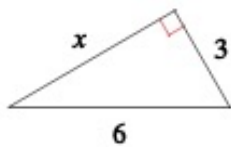


$$A^2 + B^2 = C^2$$

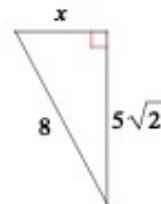


$$A^2 + B^2 = C^2$$

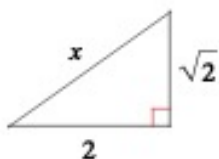
Practice



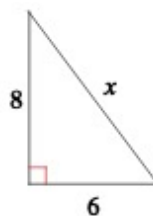
$$A^2 + B^2 = C^2$$



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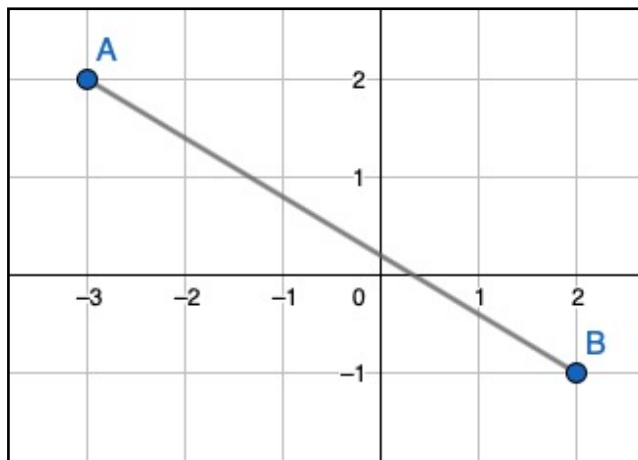


$$A^2 + B^2 = C^2$$

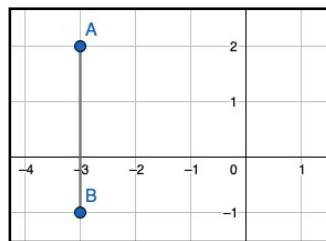


$$A^2 + B^2 = C^2$$

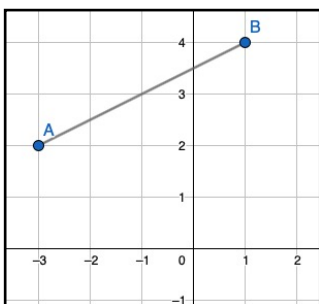
Distance Formula



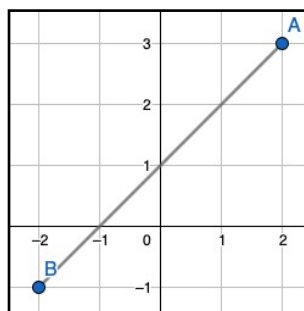
$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$



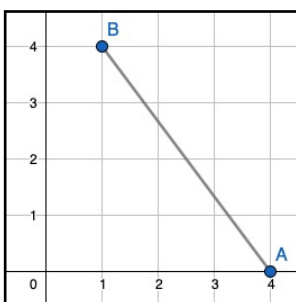
Practice



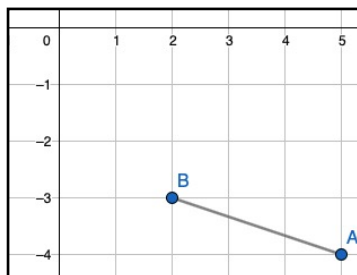
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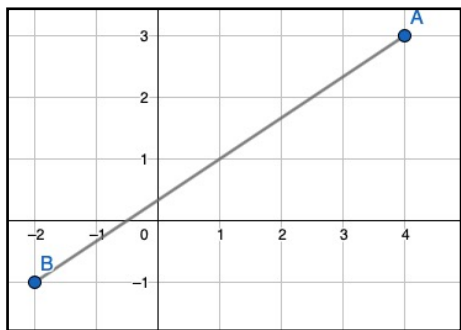


$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

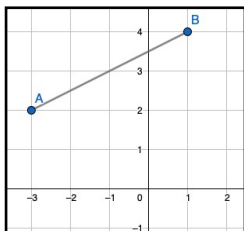


$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

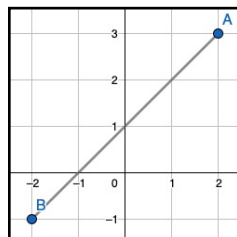
Midpoint Formula with Practice Below



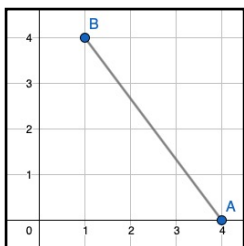
$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$



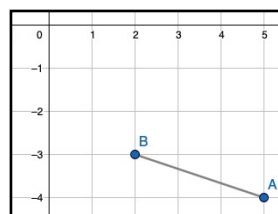
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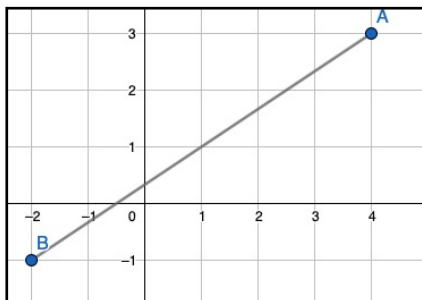


$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

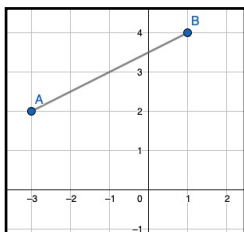


$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

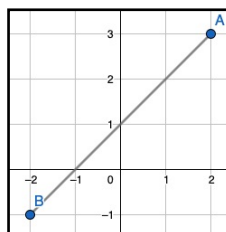
Slope Formula with Practice Below



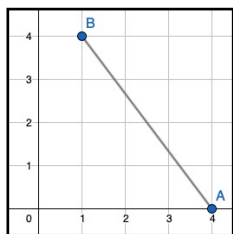
$$m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$



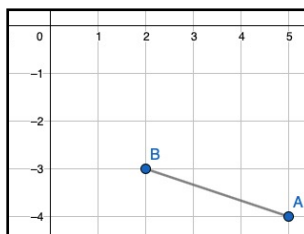
$$m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$



$$m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$



$$m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$



$$m = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1}$$