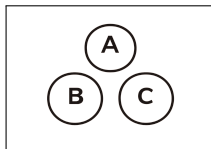


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Basic Properties and Facts Distance Formula

A



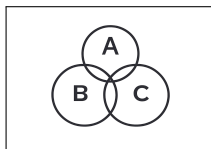
$$P_1 = (4, 6)$$

$$P_2 = (10, 12)$$

$$d(P_1, P_2) = \sqrt{(10 - 4)^2 + (12 - 6)^2}$$

$$d(P_1, P_2) = \sqrt{6^2 + 6^2}$$

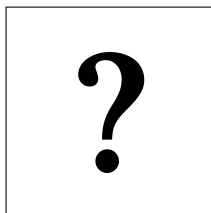
$$d(P_1, P_2) = \sqrt{72}$$



$$P_1 = (x_1, y_1)$$

$$P_2 = (x_2, y_2)$$

$$d(P_1, P_2) = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$



$$P_1 = (-6, -12)$$

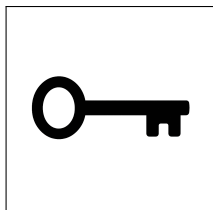
$$P_2 = (3, 4)$$

$$d(P_1, P_2) = ?$$

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Basic Properties and Facts
Distance Formula

A



$$P_1 = (-6, -12)$$

$$P_2 = (3, 4)$$

$$d(P_1, P_2) = \sqrt{(-6 - 3)^2 + (-12 - 4)^2}$$

$$d(P_1, P_2) = \sqrt{(-9)^2 + (-16)^2}$$

$$d(P_1, P_2) = \sqrt{81 + 256}$$

$$d(P_1, P_2) = \sqrt{337}$$