



Name:

Date:

Distance Formula $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

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

1. Use the midpoint formula to find the midpoint between the car (1,7) and the bicycle (7,1)?

$$M = \left(\frac{1 + 7}{2}, \frac{7 + 1}{2} \right)$$

$$M = (\quad , \quad)$$

2. Use the distance formula to find the distance between the apple (8,7) and water bottle (2,1)?

$$= \sqrt{(-8 - 2)^2 + (7 - 1)^2}$$

$$= \sqrt{(-6)^2 + (-6)^2}$$

$$= \sqrt{\quad + \quad 36}$$

$$= \sqrt{\quad}$$

$$= 8.48$$

3. Use the midpoint formula to find the midpoint between the banana(5,7) and the orange (9, 3) ?

$$M = \left(\frac{\underline{\hspace{2cm}} + \underline{\hspace{2cm}}}{2}, \frac{\underline{\hspace{2cm}} + \underline{\hspace{2cm}}}{2} \right)$$

$$M = (\underline{\hspace{2cm}}, \underline{\hspace{2cm}})$$

4. Use the distance formula to find the distance between the Canadian (3, 7) and American flag (7, 3)?

$$= \sqrt{(\underline{\hspace{2cm}} - \underline{\hspace{2cm}})^2 + (\underline{\hspace{2cm}} - \underline{\hspace{2cm}})^2}$$

$$= \sqrt{(\underline{\hspace{2cm}})^2 + (\underline{\hspace{2cm}})^2}$$

$$= \sqrt{\underline{\hspace{2cm}} + \underline{\hspace{2cm}}}$$

$$= \sqrt{\underline{\hspace{2cm}}}$$