

Example 3: Find the midpoint of the line segment with endpoints $(-3, -1)$ and $(7, -5)$.

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

$$M = \left(\frac{-3 + 7}{2}, \frac{-1 + (-5)}{2} \right) \quad M = \left(\frac{4}{2}, \frac{-6}{2} \right)$$
$$(M = 2, -3)$$

Example 4: Find the midpoint of the line segment with endpoints $(6, -3)$ and $(4, -7)$.

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

$$\frac{6 + 4}{2}, \frac{-3 + (-7)}{2}$$

$$\frac{10}{2}, \frac{-10}{2}$$

$$M = 5, -5$$