Notes Distance and Midpoint Formulas

The **Midpoint** of a line segment, m, from point $A(x_1, y_1)$ to $B(x_2, y_2)$ can be found by the formula:

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

The **Distance**, d, between two points $A(x_1, y_1)$ to $B(x_2, y_2)$ can be found by the formula:

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

Determine the length and midpoint of the line segment with the given endpoints.

Ex1: $(4, 6)$ and $(-5, -6)$	Ex2: $(5, 0)$ and $(1, 3)$
Ex3: $(-3, -2)$ and $(1, 2)$	