Midpoint Formula

About These Problems

The midpoint formula is very simple. It tells you the point that is exactly at the center of the direct line between any two points.

Formula. (x_m, y_m) is the midpoint of (x_1, y_1) and (x_2, y_2)

$$x_m = (x_1 + x_2) / 2$$
$$y_m = (y_1 + y_2) / 2$$

Question. If the midpoint of point A and B is (2,3) and A is (0,0) what is point B?

1. (4,6)
2. (3,5)
3. (3,6)
4. (4,5)
5. (7,8)

Answer. 1: Plug the points into the midpoint formula and solve.

$$2 = (0 + x) / 2 \rightarrow x=4$$
$$3 = (0 + y) / 2 \rightarrow y=6$$