3.2 Midpoint of a Line Segment

Complete Investigation Handout with partner

Midpoint formula:

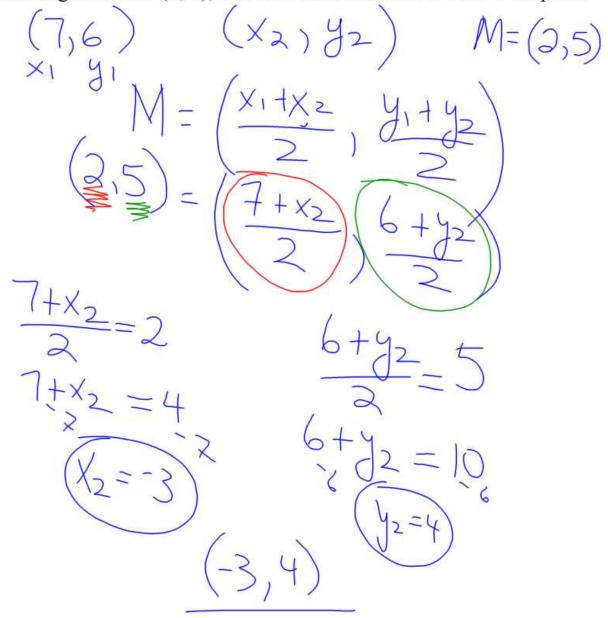
$$M = \left(\frac{\left(x_1 + x_2\right)}{2}, \frac{\left(y_1 + y_2\right)}{2}\right)$$

Determine the coordinates of the midpoint M on the line segment joining A(9,4) and B(1,2)

$$M = \begin{pmatrix} 9+1 \\ 2 \end{pmatrix} + \frac{1}{2} = \begin{pmatrix} 5 \\ 3 \end{pmatrix}$$

Bonnyville is located at the coordinates (-4,-1) and Cold Lake is located at the coordinates (2,-7). If they want to build a 7 - Eleven half way between the two what would the coordinates of the 7 - Eleven be?

One endpoint of a line segment is at (7, 6). The midpoint of the line segment is at (2, 5), find the coordinates of the other endpoint.



Assignment: Pg. 158 2 ac, 4, 5a, 9, 14, 15ac, 20