



Problem 1 – Midpoints of Horizontal or Vertical Segments

1. List the coordinates for your horizontal and vertical segments.

Endpoints

(____, ____) and (____, ____)

Predicted Midpoint

(____, ____)

(____, ____) and (____, ____)

(____, ____)

2. Describe how you can predict the coordinates of the midpoint of a horizontal or vertical segment.

Problem 2 – Midpoints of Diagonal Segments

3. List the coordinates for your diagonal segments.

Endpoints

(____, ____) and (____, ____)

Predicted Midpoint

(____, ____)

(____, ____) and (____, ____)

(____, ____)

4. Describe how you can predict the coordinates of the midpoint of a diagonal segment.



Exercises

5. What formula gives the midpoint of the segment with endpoints (x_1, y_1) and (x_2, y_2) ?

Determine the midpoint of a segment with the following endpoints:

6. (3, 10) and (5, 10)
7. (1, 8) and (8, 9)
8. (7, 2) and (4, 4)
9. (-2, 3) and (5, -7)
10. (1.8, 4.9) and (7.2, 2.7)
11. (-3.3, 5.5) and (-5.5, 3.3)

Given an endpoint and midpoint of a segment, find the other endpoint:

12. Endpoint (3, 1) Midpoint (3, 4)
13. Endpoint (2, 5) Midpoint (5, 6)
14. Endpoint (-4, 3) Midpoint (1, 0)