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| Go to 300math.weebly.com, Unit 2&3, Day 2http://t1.gstatic.com/images?q=tbn:ANd9GcScy7LsBXdnU0ZXuyZawDGiuEWyk6-YmHd5yWV15gkzkDqVa77DyQClick **Start** “Discovering Midpoints” |

**Task 1: The Midpoint Formula**

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**VERTICAL LINE SEGMENTS**

**What is the midpoint of the line segment AB?**

A (-6, 9)

B (-6, 3)

 M ( , )

**How can the midpoint be determined using a mathematical calculation instead of counting the number of squares?**

**Answer:**

**HORIZONTAL LINE SEGMENTS**

**What is the midpoint of the line segment AB?**

A (2, 1)

B (8, 1)

 M ( , )

**How can the midpoint be determined using a mathematical calculation instead of counting the number of squares?**

**Answer:**

**DIAGONAL LINE SEGMENTS**

**What is the midpoint of the line segment AB?**

A (3, 2)

B (7, 8)

**First, find the values**

**Next, find the values**

**Midpoint = ( , )**

**Summary:**

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| **Formula for the Midpoint of a Line Segment:** midpoint = midpoint =  |

**Task 2: Practice**

* Complete the 5 practice examples in Discovering Midpoints.

**Task 3: Application**

M is the midpoint of line segment UP. The coordinates of U are (-2, 3) and the coordinates of M

are (1, 0). Find the coordinates of P.

 