**Partitioning a Segment Notes Sheet**

Partitioning a segment means that you are going to take a line segment and break it into equal parts and then find a point that is a specific distance between those points. We will be using the slope to find this.

Find the coordinates of the point *P* that lies along the directed line segment from *A*(3, 4) to *B*(6, 10) and partitions the segment in the ratio 3 to 2.

**Guided Practice**

Find the coordinates of the point *P* that lies along the directed segment from *J*(−2, 5) to *K*(2, −3) and partitions the segment into the ratio 4 to 1.

**Your Turn**

Find the coordinates of the point *P* that lies along the directed segment from *R*(−3, −4) to *S*(5, 0) and partitions the segment into the ratio 2 to 3.
Guided Practice
Cleve’s Cookie Store is located at the corner of 2nd Avenue and 9th Street. Dave’s Doorknobs is located at the corner of 12th Avenue and 14th Street. Located 1/5 of the distance from Cleve’s Cookie Store is the post office. Where is the post office?

Your Turn
Luis works at a theater on 8th Avenue and 20th Street. Kaleb lives at the corner of 18th Avenue and 4th Street. What is a possible location that is midway between them?