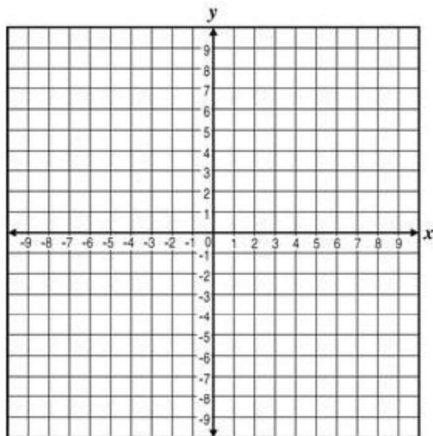# PARTITIONING a Line Segment
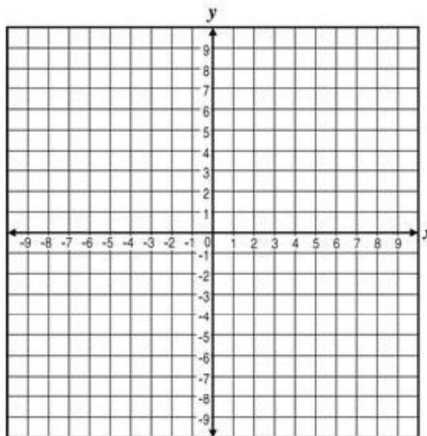
1. Given the points *A*(-7, -8) and *B* (5, 1), find the coordinates of the point *P* on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 2:1.
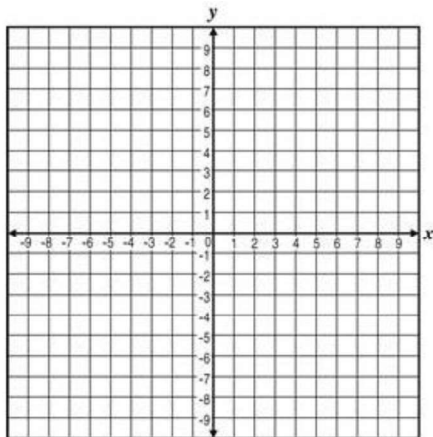
2. Given the points *A*(0, 4) and *B* (9, -8), find the coordinates of the point *P* on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 1:2.
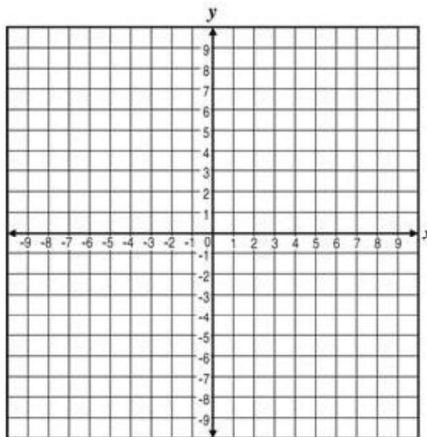
3. Given the points *A*(-7, 7) and *B* (8, -3), find the coordinates of the point *P* on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 4:1.
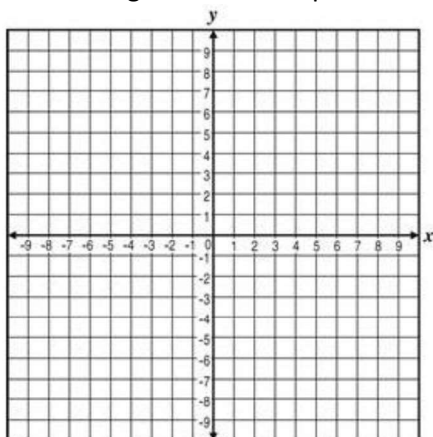
4. Given the points *A*(-10, -4) and *B* (10, 1), find the coordinates of the point *P* on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 3:2.
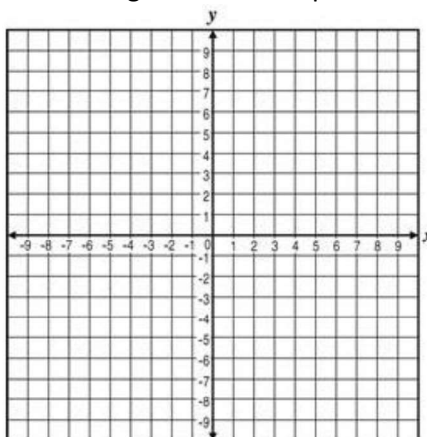
5. Given the points *A*(5, -10) and *B* (-2, 4), find the coordinates of the point *P* on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 3:4.
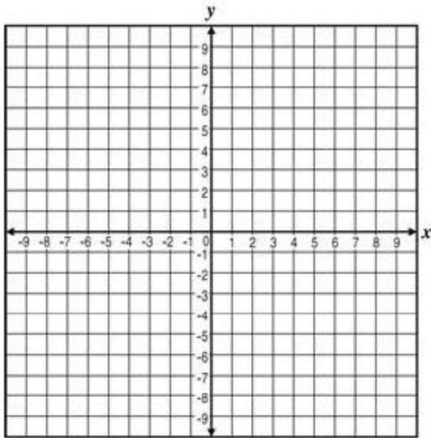
6. Given the points *A*(9, 0) and *B* (-7, 4), find the coordinates of the point *P* on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 3:1.

7 Given the points A(-9, -9) and B (6, -6), find the coordinates of the point P on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 2:1.

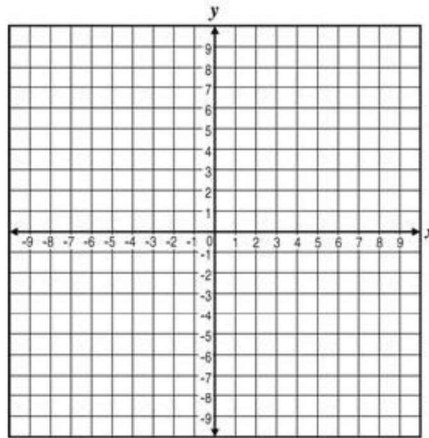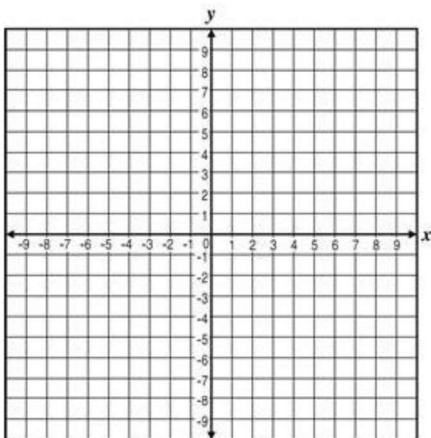**8** Given the points A(9, 2) and B (-3, -6), find the coordinates of the point P on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 1:3.
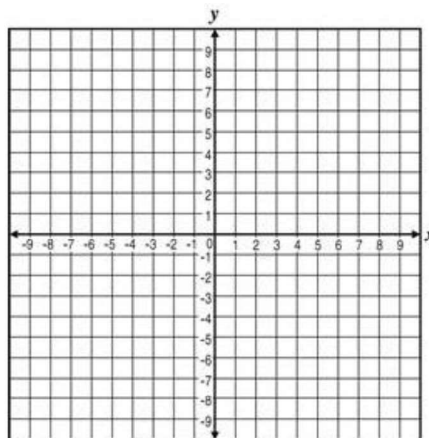
9 Given the points A(-6, -10) and B (-1, 5), find the coordinates of the point P on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 2:3.

10 Given the points A(7, 4) and B (-9, 0), find the coordinates of the point P on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 3:1.

11 Given the points A(3, -5) and B (8, 5), find the coordinates of the point P on directed line segment $\overline{AB}$ that partitions $\overline{AB}$ in the ratio 1:4.

12 Given the points A(-8, -3) and B (7, 2), find the coordinates of the point P on directed line segment $\overline{AB}$ that pa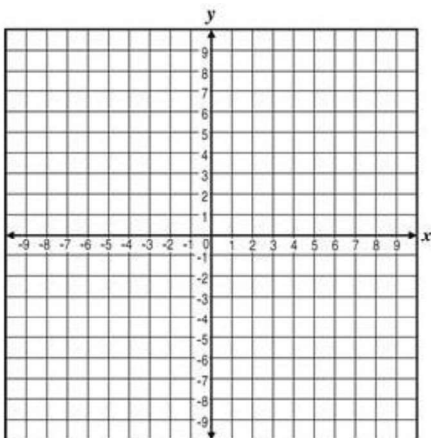rtitions $\overline{AB}$ in the ratio 2:3.