

## Directed Line Segment Worksheet

Find the partitioning point for each problem.

1. Given the point  $A(-3,-2)$  and  $B(6, 1)$ , find the coordinates of the point  $P$  on directed line segment  $AB$  that partitions  $AB$  in the ratio 2:1.
  
2. Given the points  $A(-3,-4)$  and  $B(2, 0)$ , find the coordinates of the point  $P$  on directed line segment  $AB$  that partitions  $AB$  in the ratio 2 to 3.
  
3. Given the points  $A(-3, 1)$  and  $B(4, 5)$ , find the coordinates of the point  $P$  on directed line segment  $AB$  that partitions  $AB$  in the ratio 5:2.
  
4. Given the point  $A(-3, -3)$  and  $P(5, 1)$ , find the coordinates of the point  $B$  on directed line segment  $AB$  that partitions  $AB$  in the ratio 3:1.
  
5. Given the points  $A(-3, -4)$  and  $P(2, 0)$ , find the coordinates of the point  $B$  on directed line segment  $AB$  that partitions  $AB$  in the ratio 1 to 4.
  
6. Given the points  $A(-2, 5)$  and  $B(2, 3)$ , find the coordinates of the point  $P$  on directed line segment  $BA$  that partitions  $AB$  in the ratio of 3 to 5.
  
7. Find the coordinates of  $P$  so that  $P$  partitions the segment  $BA$  in the ratio 5:1 if  $A(2, 4)$  and  $B(8, 10)$ .
  
8. Find the coordinates of  $P$  so that  $P$  partitions the segment  $AB$  in the ratio 1 to 3 if  $A(-5, 4)$  and  $B(7, -4)$ .
  
9. Find the coordinates of  $P$  so that  $P$  partitions the segment  $BA$  in the ratio 3:4 if  $A(-9, -9)$  and  $B(5,-2)$ .
  
10. Find the coordinates of  $P$  so that  $P$  partitions the segment  $AB$  in the ratio 5 to 2 if  $A(-8, -2)$  and  $B(6, 19)$ .