

## WS 3.5A Point of Division

Date \_\_\_\_\_ Period \_\_\_\_\_

**Find the coordinates of the point that is  $\frac{2}{3}$  of the distance from point A to point B.**

1) A(1, 3) B(-2, -5)

2) A(-2, -6) B(-8, 6)

**Find the coordinates of the point that is  $\frac{3}{5}$  of the distance from point A to point B.**

3) A(4, 0) B(5, 5)

4) A(8, -4) B(-2, -5)

5) C has coordinates  $(a, 3a)$  and D has coordinates  $(-5a, 0)$ . Find the coordinates of the midpoint of CD.

6) The coordinates of H are  $(a - 5, -2a)$ . The coordinates of J are  $(a + 1, 2a)$ . If the distance between H and J is 10, find the value of a.

7) Given the points A  $(-6, -1)$ , B  $(8, -4)$ , and C  $(6, 2)$ . Find the distance from C to the midpoint of  $(AB)^{\perp}$  to the nearest tenth.