Dividing a Line Segment in a Ratio

(a) A line segment joins point A (1, 2) to point B (4, 8). Point C divides the line segment in the ratio AC : CB = 2 : 1. Find the coordinates of point C.
(b) A line segment joins point A (3, 1) to point B (11, 5). Point C divides the line segment in the ratio AC : CB = 3 : 1. Find the coordinates of point C.
(c) A line segment joins point A (3, 2) to point B (8, 12). Point C divides the line segment in the ratio AC : CB = 1 : 4. Find the coordinates of point C.

(a) (3,6)
(b) (9,4)
(c) (4,4)

(a) A line segment joins point A (2, -3) to point B (5, 9). Point C divides the line segment in the ratio AC : CB = 2 : 1. Find the coordinates of point C.
(b) A line segment joins point A (6, -4) to point B (11, 6). Point C divides the line segment in the ratio AC : CB = 3 : 2. Find the coordinates of point C.
(c) A line segment joins point A (-8, -7) to point B (12, 3). Point C divides the line segment in the ratio AC : CB = 2 : 3. Find the coordinates of point C.

(a) (4,5)
(b) (9,2)
(c) (0,-3)

(a) A line segment joins point A (9, -1) to point B (5, 7). Point C divides the line segment in the ratio AC : CB = 1 : 7. Find the coordinates of point C.
(b) A line segment joins point A (1, 5) to point B (-5, 2). Point C divides the line segment in the ratio AC : CB = 5 : 1. Find the coordinates of point C.

(a) (8.5,0)
(b) (-4,2.5)

A line segment joins point A (5, 2) with point B. Point C with coordinates (4, 4) divides the line segment in the ratio AC : CB = 1 : 3. Find the coordinates of B.

(1,10)