Partitioning Directed Line Segments

Example: Label point A (9, -14), point B (13, 2), and point C (10, -10)

Point C divides the directed line segment from A to B in a 1: 3 ratio.

- Label point M(-14, 0), point N(0,7) and point P (-10, 2). P divides the directed line segment from M to N in a ______ratio
- Label point W(-2, -3), point X(7,6) and point Z (1, 0). Z divides the directed line segment from W to X in a ______ratio
- Label point J(3, -8), point K(-12, -3) and point L (-6, -5). L divides the directed line segment from J to K in a ______ratio
- Label point S(12, 6), point T(-2,13) and point V (6, 9). V divides the directed line segment from S to T in a ______ratio



Plot the points A and B then find and plot the point that partitions the directed segment from A to B into the given ratio.

	y y	y	y
·			
	X		X
· · · · · · · · · · · · · · · · · · ·			
A (–5, –3) and B (1, 6) Plot	A $(3, -2)$ and B $(-5, 2)$ Plot	A (–6, 4) and B (4, –6) Plot	A (2, 4) and B (−5, −3) Plot
point C to partition AB into	point C to partition AB into	point C to partition AB into	point C to partition AB into
a 1:2 ratio.	a 1:3 ratio.	a 2:3 ratio.	a 3:4 ratio.
Point C: (,)	Point C: (,)	Point C: (Point C: (,)
	Y	y	Ţy
x	× ×	X	X
A (-7 -3) and $B (3 -2)$ Plot	A (-5, 4) and B (7, -5) Plot	A(-6, -4) and $B(-1, 6)$ Plot	Δ (7 -1) and B (-5 7) Plot
point C to partition AB into	point C to partition AB into	point C to partition AB into	point C to partition AB into
a 1:4 ratio.	a 2:1 ratio.	a 3:2 ratio.	a 1:3 ratio.
Point C: (,)	Point C: (,)	Point C: (,)	Point C: (,)