

Fill in the Blanks

Dividing a Line in a Ratio

Point C divides the line segment AB in the given ratio.

| Point A | Point B | AC : CB | Point C | Midpoint of AB |
|--------------------------------|-------------------------------|---------|---------------------------------|---------------------|
| (0, 0) | (3, 6) | 2 : 1 | (2, 4) | (1.5, 3) |
| (1, 1) | (7, 4) | 1 : 2 | (3, 2) | (4, 2.5) |
| (10, 5) | (0, 0) | 4 : 1 | (2, 1) | (5, 2.5) |
| (0, 0) | (10, 5) | 2 : 3 | (4, 2) | (5, 2.5) |
| (-1, 0) | (11, 8) | 3 : 1 | (8, 6) | (5, 4) |
| (4, 7) | (8, -5) | 1 : 3 | (5, 4) | (6, 1) |
| (2.3, -5.1) | (4.8, 2.4) | 3 : 2 | (3.8, -0.1) | (3.55, -1.35) |
| (9, 0) | (-5, -7) | 5 : 2 | (-1, -5) | (2, -3.5) |
| (0, 0) | (4, 8) | 3 : 1 | (3, 6) | (2, 4) |
| (2, -1) | (5, 2) | 1 : 2 | (3, 0) | (3.5, 0.5) |
| (-1, 6) | (9, 1) | 3 : 2 | (5, 3) | (4, 3.5) |
| (11, -5) | (-3, 2) | 3 : 4 | (5, -2) | (4, -1.5) |
| (0, 2a) | (-6a, 5a) | 2 : 1 | (-4a, 4a) | (-3a, 3.5a) |
| $(-\frac{9}{10}, \frac{2}{3})$ | $(\frac{1}{2}, 5\frac{1}{3})$ | 4 : 3 | $(-\frac{1}{10}, \frac{10}{3})$ | $(-\frac{1}{5}, 3)$ |
| (-2, 1) | (10, -5) | 2 : 1 | (6, -3) | (4, -2) |
| $(\frac{b}{2}, -6b)$ | $(\frac{3b}{2}, 8b)$ | 2 : 5 | $(\frac{11b}{14}, -2b)$ | (b, b) |