Partitioning Segments by a Ratio

\[ (x_2 - x_1) \left( \frac{a}{a+b} \right) + x_1 \]

1) A is at 1, and B is at 10. Find the point, T, so that T partitions A to B in a 2:1 ratio.

2) A is at -2 and B is at 14. Find the point, T, so that T partitions A to B in a 3:1 ratio.

3) A is at -2 and B is at 7. Find the point, T, so that T partitions A to B in a 1:2 ratio.

4) A is at -5 and B is at 5. Find the point, T, so that T partitions A to B in a 2:3 ratio.

5) A is at -6 and B is at 9. Find the point, T, so that T partitions A to B in a 3:2 ratio.

6) A is at 5 and B is at -7. Find the point, T, so that T partitions A to B in a 2:1 ratio.
7) A is at 2 and B is at 7. Find the point, T, so that T partitions A to B in a 2:3 ratio.

8) A is at -4 and B is at 10. Find the point, T, so that T partitions A to B in a 3:4 ratio.

Challenge: Plot points A and B and then find the coordinates of point T.

9) Find the coordinates of T that partitions A(2, 3) to B(5, 9) in a 1:2 ratio.

10) Find the coordinates of T that partitions A(1, 4) to B(7, 13) in a 1:2 ratio.

11) Find the coordinates of T that partitions A(-2, 1) to B(8, 11) in a 2:3 ratio.