

Unit 1 Facts

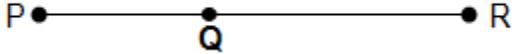
Distance: a) number line: $d = |a - b|$

b) coordinate plane: $d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$

Midpoint: a) number line: $M = \frac{a+b}{2}$

b) coordinate plane: $M = \left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$

Postulates:

Point, line & plane postulates	Through any 2 points there is exactly one line.
	Through any 3 NON-COLLINEAR points there is exactly one plane containing them.
	If 2 points lie in a plane, then the line containing those points is also lies in the plane.
	If 2 lines intersect, then they intersect at exactly one point.
	If 2 planes intersect, then they intersect at exactly one line.
	If a line intersects a plane and it is not in the plane, then they intersect at exactly one point.
Segment Addition Postulate	<div style="border: 1px solid black; padding: 10px; margin: 10px;"> <p>Segment Addition Postulate: If Q is between P and R, then $PQ + QR = PR$.</p>  <p style="text-align: center;">Part + Part = Whole</p> </div>