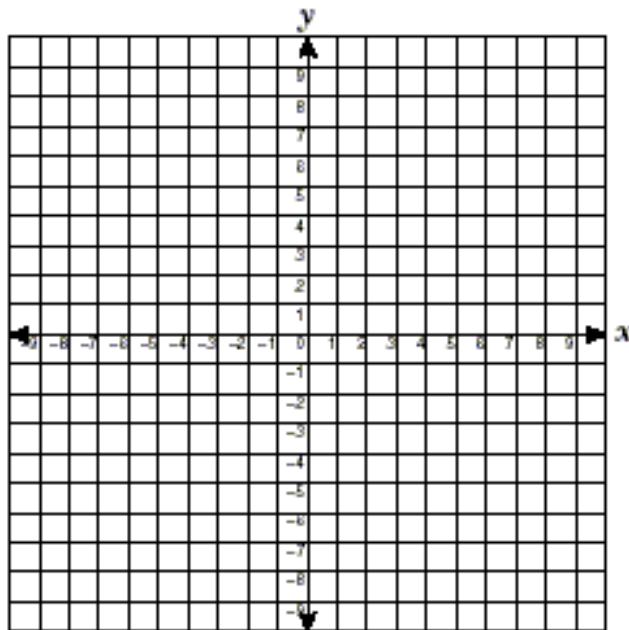


8.5 Partitioning Line Segments

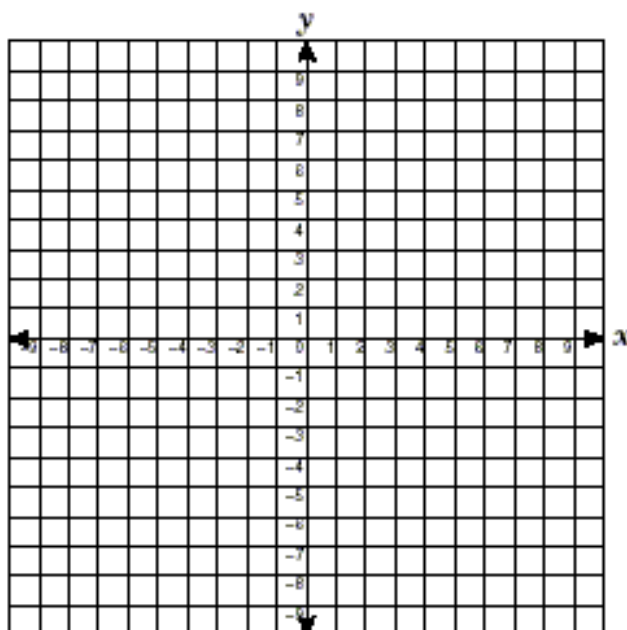
Objective: Students will be able to apply the pythagorean theorem and the distance formula.

How To Partition a Line Segment

The endpoints of line \overline{AC} are $A(-2,-7)$ and $C(-2,8)$. Determine the coordinates of point B , if $AB:BC = 2:3$.

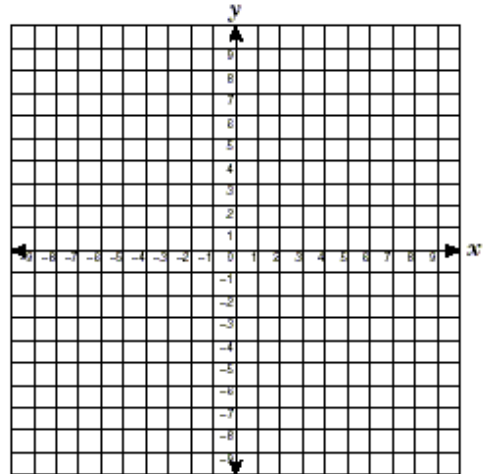


The endpoints of line \overline{XY} are $X(-4,5)$ and $Y(8,-5)$. Determine the coordinates of point Z , if $XZ:ZY = 1:3$.

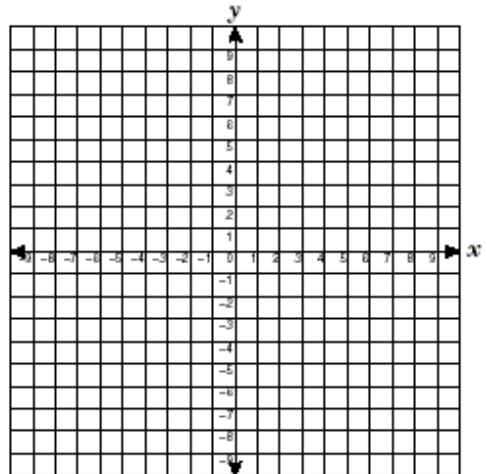


Independent Practice

The endpoints of line \overline{DEF} are $D(-10,-3)$ and $F(5,7)$. Determine and the the coordinates of point E, if $DE:EF = 3:2$.



The endpoints of line \overline{XYZ} are $X(-1,-3)$ and $Z(5,9)$. Determine and the the coordinates of point Y, if $XY:YZ = 2:1$.



The endpoints of line \overline{MO} are $M(-4,9)$ and $Z(2,-7)$. Determine and the the coordinates of point Y, if $XY:YZ = 1:3$.

