

Name _____

Date _____

1. Plot and label the following points on the coordinate plane.

C: (0.4, 0.4)

A: (1.1, 0.4)

S: (0.9, 0.5)

T: (0.9, 1.1)

a. Use a straightedge to construct line segments \overline{CA} and \overline{ST} .

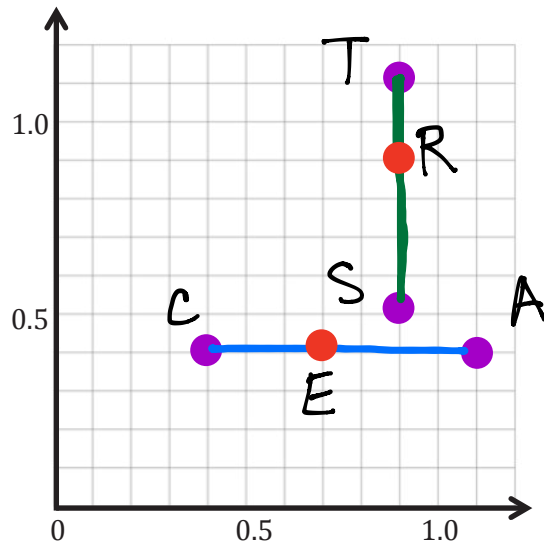
b. Name the line segment that is perpendicular to the x -axis and parallel to the y -axis. \overline{ST}

c. Name the line segment that is parallel to the x -axis and perpendicular to the y -axis. \overline{CA}

d. Plot a point on \overline{CA} and name it E . Plot a point on line segment \overline{ST} and name it R .

e. Write the coordinates of points E and R .

$E(0.7, 0.4)$ $R(0.9, 0.9)$



Answers will vary

2. Construct line m such that the y -coordinate of every point is $1\frac{1}{2}$, and construct line n such that the x -coordinate of every point is $5\frac{1}{2}$.

a. Line m is $1\frac{1}{2}$ units from the x -axis.

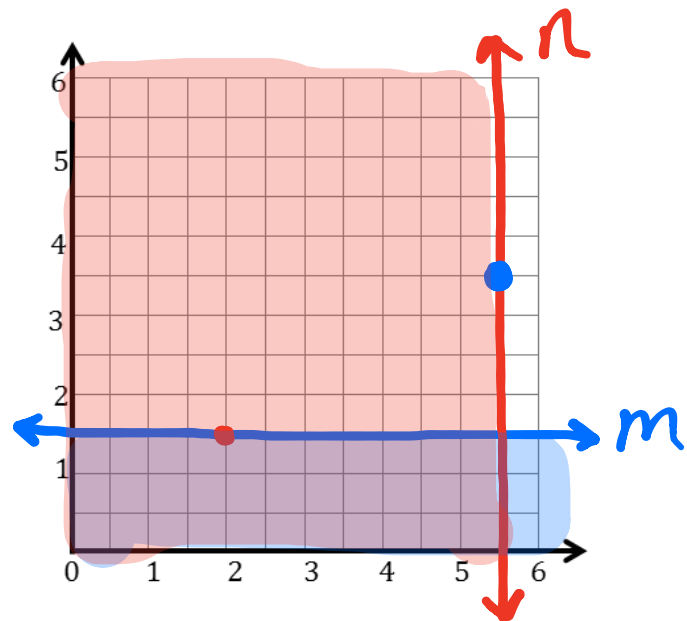
b. Give the coordinates of the point on line m that is 2 units from the y -axis. $(2, 1\frac{1}{2})$

c. With a blue pencil, shade the portion of the grid that is less than $1\frac{1}{2}$ units from the x -axis.

d. Line n is $5\frac{1}{2}$ units from the y -axis.

e. Give the coordinates of the point on line n that is $3\frac{1}{2}$ units from the x -axis. $(5\frac{1}{2}, 3\frac{1}{2})$

f. With a red pencil, shade the portion of the grid that is less than $5\frac{1}{2}$ units from the y -axis.



3. Construct and label lines e , r , s , o on the plane below.
- Line e is 3.75 units above the x -axis.
 - Line r is 2.5 units from the y -axis.
 - Line s is parallel to line e but 0.75 farther from the x -axis.
 - Line o is perpendicular to lines s and e and passes through the point $(3\frac{1}{4}, 3\frac{1}{4})$.
4. Complete the following tasks on the plane.
- Using a blue pencil, shade the region that contains points that are more than $2\frac{1}{2}$ units and less than $3\frac{1}{4}$ units from the y -axis.
 - Using a red pencil, shade the region that contains points that are more than $3\frac{3}{4}$ units and less than $4\frac{1}{2}$ units from the x -axis.
 - Plot a point that lies in the double shaded region, and label its coordinates.

