

Name _____

Date _____

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

$C: (0.4, 0.4)$

$A: (1.1, 0.4)$

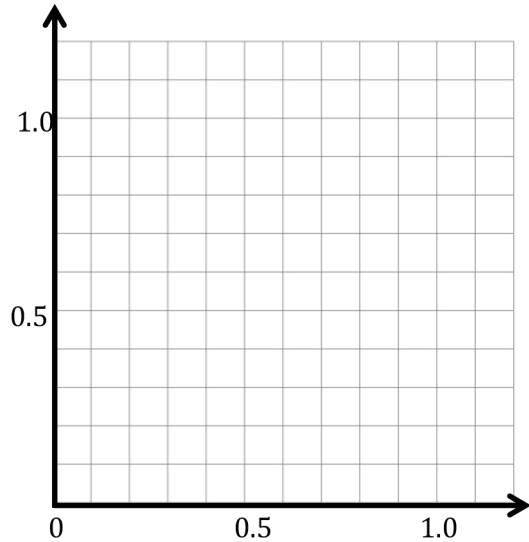
$S: (0.9, 0.5)$

$T: (0.9, 1.1)$

- 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.
- c. Name the line segment that is parallel to the x -axis and perpendicular to the y -axis.
- 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 .

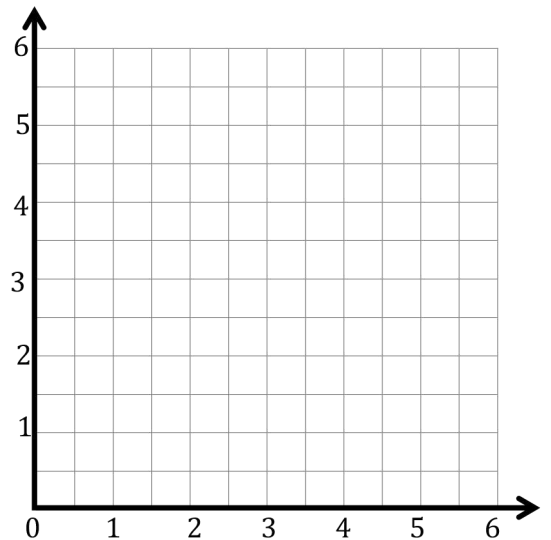
$E (\quad , \quad)$

$R (\quad , \quad)$

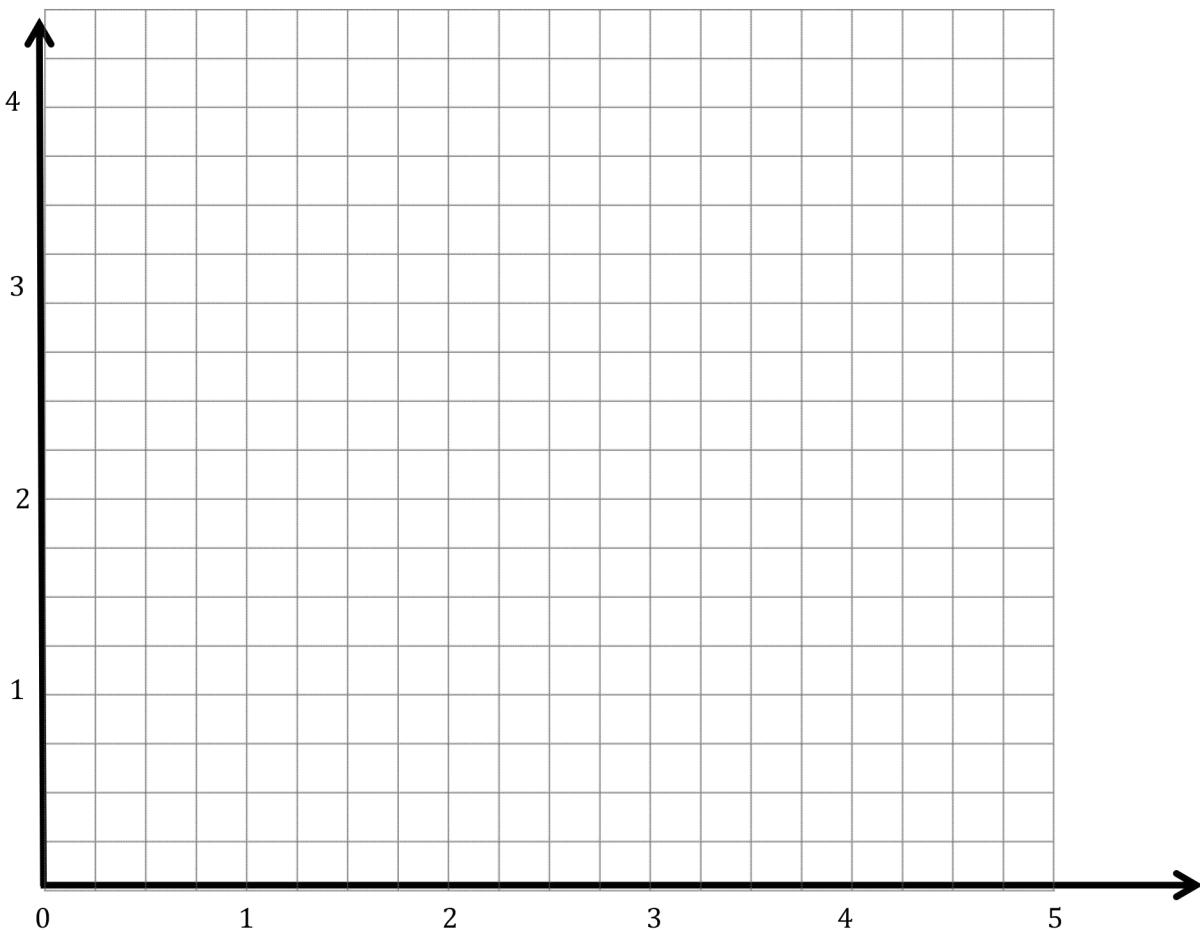


2. Construct line m such that the y -coordinate of every point is $1\frac{1}{2}$, and construct line n such that the x -coordinate of every point is $5\frac{1}{2}$.

- a. Line m is _____ units from the x -axis.
- b. Give the coordinates of the point on line m that is 2 units from the y -axis. _____
- 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 _____ 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. _____
- 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.
 - a. Line e is 3.75 units above the x -axis.
 - b. Line r is 2.5 units from the y -axis.
 - c. Line s is parallel to line e but 0.75 farther from the x -axis.
 - d. 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.
 - a. 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.
 - b. 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.
 - c. Plot a point that lies in the double shaded region, and label its coordinates.



Answer Key

1. Points plotted and labeled correctly.
 - a. Lines drawn through given points
 - b. \overline{ST}
 - c. \overline{CA}
 - d. Answers will vary.
 - e. Answers will vary.
2.
 - a. $1\frac{1}{2}$
 - b. $(2, 1\frac{1}{2})$
 - c. Appropriate section shaded
 - d. $5\frac{1}{2}$
 - e. $(5\frac{1}{2}, 3\frac{1}{2})$
 - f. Appropriate section shaded
3. (a–d) Lines constructed and labeled on plane
4. (a–c) Tasks completed on plane