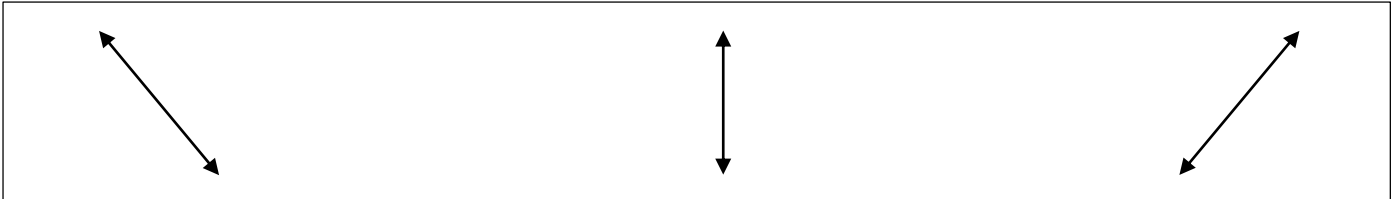


## 4.G.A.1 Parallel, Perpendicular, and Intersecting Lines

4.G.A.1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Give what is asked in each item and then write your answers on the space provided.

1. Draw a line perpendicular to each of the following lines using a compass and straightedge.



2. Fill in the missing information about the objects/images.

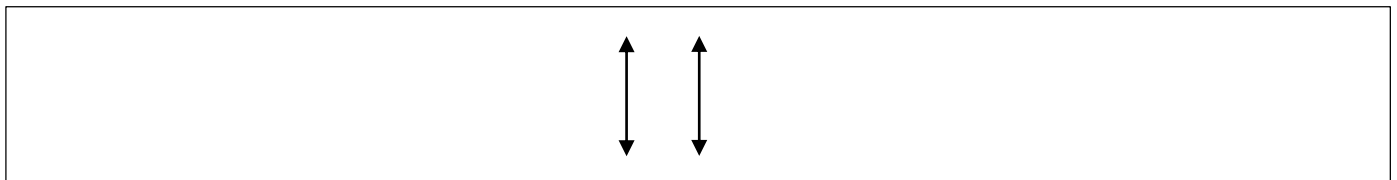
a. The edges of the road is a good model of \_\_\_\_\_ lines.



b. The image below is a good model of \_\_\_\_\_ lines.

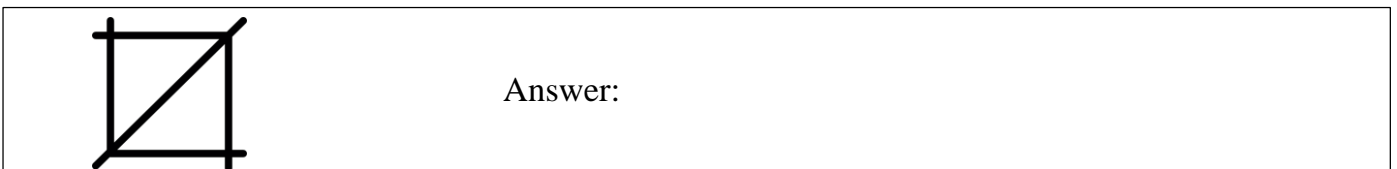


3. Using a ruler, draw a line that is perpendicular to both lines shown below.



4. Parallel lines  $a$  and  $b$  lie on an  $XY$  plane. Is it possible for line  $c$  to be perpendicular with line  $a$  but not with line  $b$ ? If yes, draw it. If otherwise, explain.

5. Use the figure below. How many sets of intersecting lines does this figure have?



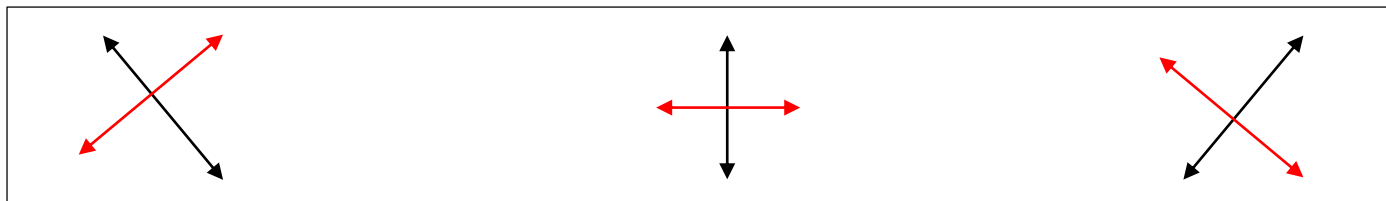
## 4.G.A.1 Parallel, Perpendicular, and Intersecting Lines

### Answer Key

4.G.A.1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Give what is asked in each item and then write your answers on the space provided.

1. Draw a line perpendicular to each of the following lines using a compass and straightedge.



2. Fill in the missing information about the objects/images.

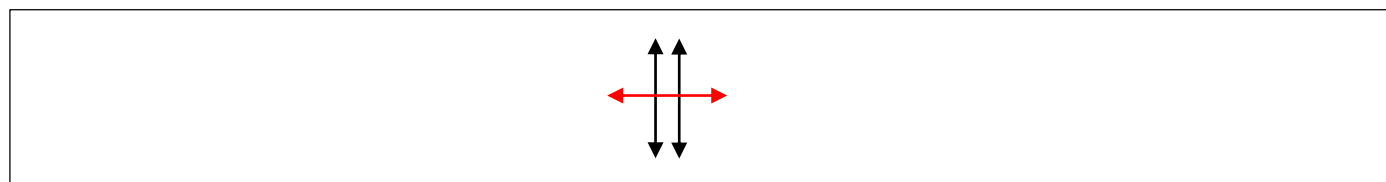
a. The edges of the road is a good model of parallel lines.



b. The image below is a good model of perpendicular lines.



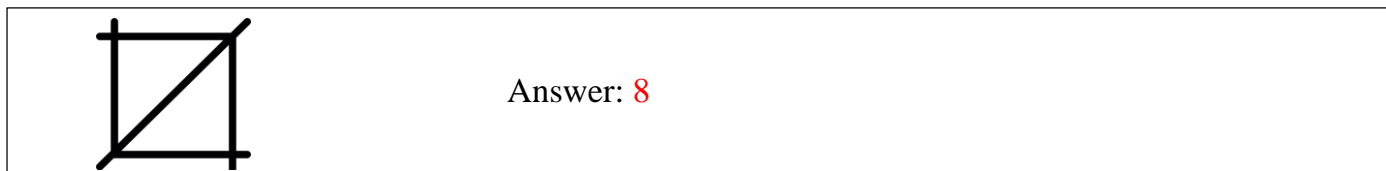
3. Using a ruler, draw a line that is perpendicular to both lines shown below.



4. Parallel lines  $a$  and  $b$  lie on an  $XY$  plane. Is it possible for line  $c$  to be perpendicular with line  $a$  but not with line  $b$ ? If yes, draw it. If otherwise, explain.

No. Lines have infinite lengths. On the same plane, if a line intersects to one of the two parallel lines, it will also intersect the other line at the same angle. So if line  $c$  is perpendicular with line  $a$ , it is also perpendicular with line  $b$ .

5. Use the figure below. How many sets of intersecting lines does this figure have?



Answer: 8