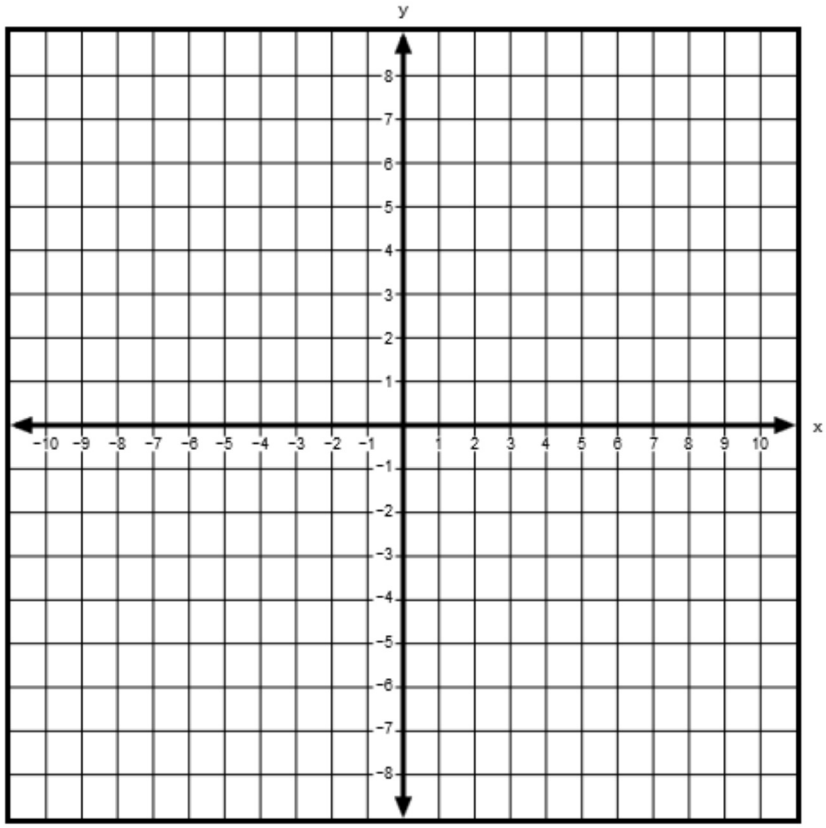
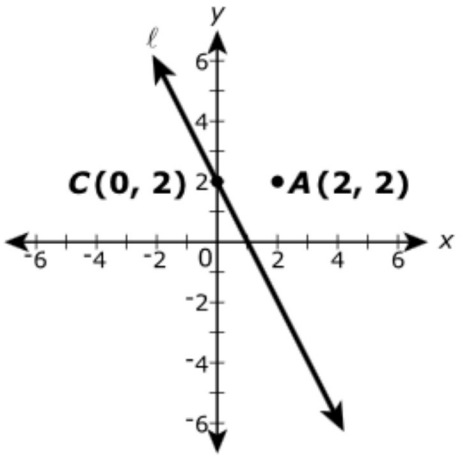
4. Triangle P is dilated from center A by a scale factor of 2 to form triangle Q. The vertices for triangle P are $(-2, 1), (2, 4)$ and $(2, 1)$. The vertices for triangle Q are $(-1, -3), (7, 3)$ and $(7, -3)$. Graph point A, the center of dilation.

Select the place on the coordinate plane to plot the point.



VF799014

5. In the *xy*-coordinate plane shown, line ℓ passes through point *C* and has a slope of -2.

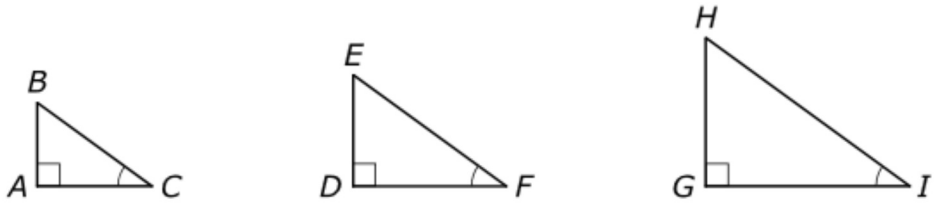


Enter your answers in the boxes.

A dilation of line ℓ with center *A* and a scale factor of 3 will produce a new line through point C', the image of point *C*, with coordinates (☐ , ☐) and with a slope of ☐ .

VF901582

6. In the three right triangles shown, $m\angle C = m\angle F = m\angle I = 36°$.



Complete the statements about the triangles by dragging the correct choices into the proper locations. Not all choices will be used.

Drag and drop the choices into the appropriate boxes.

AA similarity	adjacent leg	ASA	congruent	cosine	CPCTC	GH/GI	GI/GH	hypotenuse	similar	sine	tangent

Because each triangle contains a right angle and a 36° angle, the triangles are ☐ by ☐, and $\frac{AB}{AC} = \frac{DE}{DF} =$ ☐. The proportion shows that the ratio of the length of the leg opposite the 36° angle to the length of the ☐ will be the same for any right triangle with a 36° angle. The value of the ratio is defined to be the ☐ of 36°.

VF559764

7. Triangle *ABC* has sides with lengths of 3, 6, and 8. Classify each of the transformations described as producing a triangle **similar** to triangle *ABC* or a triangle **not similar** to triangle *ABC*.

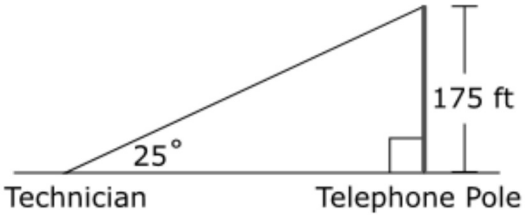
Drag and drop each transformation into the appropriate box.

Multiply each side length by 3.5.	Add 12 to each side length.	Subtract 2 from each side length.	Divide each side length by 0.75.

Similar to Triangle *ABC*	Not Similar to Triangle *ABC*

M41890

8. A maintenance technician sights the top of a telephone pole at a 25° angle of elevation as shown.



Determine the horizontal distance between the technician and the base of the telephone pole to the nearest tenth of a foot.

Enter your answer in the box.

[ ] feet