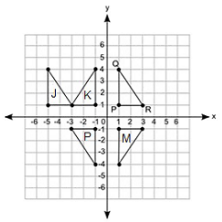
powered by ExamView

The figure shows triangle PQR and some of its transformed images on a coordinate grid:

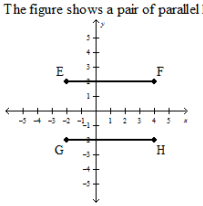


Which of the four triangles was formed by a rotation of triangle PQR 180 degrees about the origin?

a. P
b. J
c. K
d. M

powered by ExamView

The figure shows a pair of parallel lines on a coordinate grid:

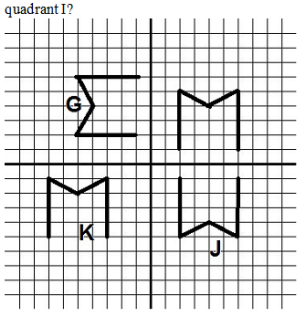


The line segments are translated 4 units to the left to form E'F' and G'H'. Which statement describes E'F' and G'H'?

a. Line segments E'F' and G'H' intersect at (−4, 0) and are four times farther apart than EF and GH.
b. Line segments E'F' and G'H' intersect at (0, −4) and are four times farther apart than EF and GH.
c. Line segments E'F' and G'H' do not intersect and are the same distance apart as EF and GH.
d. Line segments E'F' and G'H' do not intersect and are closer together than EF and GH.

powered by ExamView

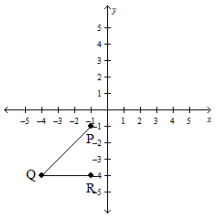
Which of the images was formed by a reflection of the letter M located in quadrant I?



a. K
b. J
c. G
d. none of the other choices

powered by ExamView

Angle PQR is formed by segments PQ and QR on the following coordinate grid:

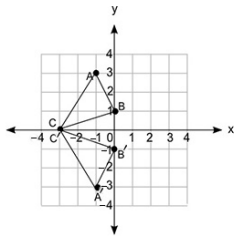


Angle PQR is rotated 90 degrees counterclockwise about the origin to form angle P'Q'R'. Which statement shows the measure of angle P'Q'R'?

a. $m\angle P'Q'R' = 2 \bullet m\angle PQR$
b. $m\angle P'Q'R' = m\angle PQR$
c. $m\angle P'Q'R' = 180$ degrees
d. $m\angle P'Q'R' = 90$ degrees

powered by ExamView

Triangle ABC is transformed to triangle A'B'C', as shown below:

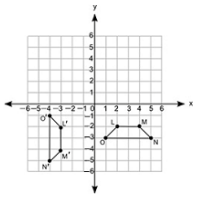


Which equation shows the correct relationship between the measures of the angles of the two triangles?

a. $m\angle CAB = m\angle C'A'B'$
b. $m\angle BCA = m\angle C'A'B'$
c. $m\angle CAB = m\angle C'B'A'$
d. $m\angle BCA = m\angle A'B'C'$

powered by ExamView

Polygons LMNO and L'M'N'O' are shown on the following coordinate grid:

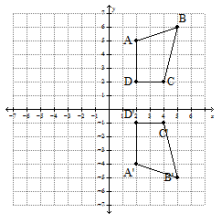


What set of transformations is performed on LMNO to form L'M'N'O'?

a. A 90-degree clockwise rotation about the origin followed by a translation 1 unit to the left
b. A translation 1 unit to the right followed by a 270-degree clockwise rotation about the origin
c. A translation 1 unit to the left followed by a 90-degree counterclockwise rotation about the origin
d. A 270-degree clockwise rotation about the origin followed by a translation 1 unit to the right

powered by ExamView

Figure ABCD is transformed to figure $A'B'C'D'$, as shown:

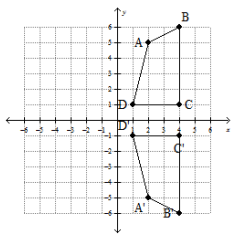


Which of the following sequences of transformations is used to obtain figure $A'B'C'D'$ from figure ABCD?

a. Counterclockwise rotation by 270 degrees about the origin followed by a translation to the right by 1 unit
b. Clockwise rotation by 90 degrees about the origin followed by a translation to the left by 1 unit
c. Reflection about the x-axis followed by a translation to the up by 1 unit
d. Reflection about the y-axis followed by a translation to the right by 1 unit

powered by ExamView

Figure ABCD is transformed to figure $A'B'C'D'$, as shown:

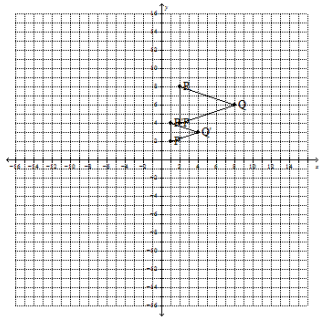


Which of the following statements best describes the relationship of the two figures?

a. Figure $ABCD$ is smaller than figure $A'B'C'D'$.
b. The measure of angle A is equal to the measure of angle D'.
c. Figure $ABCD$ is congruent to figure $A'B'C'D'$.
d. The measure of angle C is equal to the measure of angle B.

powered by ExamView

Triangle PQR is transformed to similar triangle P'Q'R'.

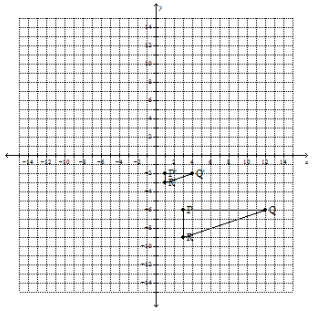


What is the scale factor of dilation?

a. $\frac{1}{4}$
b. 1
c. $\frac{1}{2}$
d. 2

powered by ExamView

Triangle PQR is transformed to similar triangle P'Q'R'.

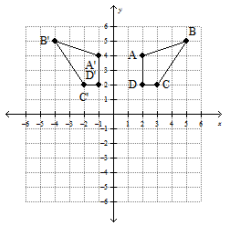


What transformation was performed on PQR to form P'Q'R'?

a. A dilation factor of 4
b. A dilation factor of $\frac{1}{3}$
c. A dilation factor of $\frac{1}{5}$
d. A dilation factor of 3

powered by ExamView

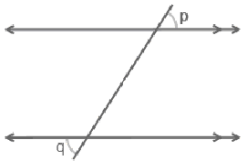
Which statement is true about the transformation of figure ABCD to figure *A'B' C' D'*, as shown:



a. Reflection about the *y*-axis followed by a translation to the right by 1 unit
b. Counterclockwise rotation by 270 degrees about the origin followed by a translation to the right by 1 unit
c. Reflection about the *x*-axis followed by a translation to the up by 1 unit
d. Clockwise rotation by 90 degrees about the origin followed by a translation to the right by 1 unit

powered by ExamView

A pair of parallel lines is cut by a transversal, as shown:

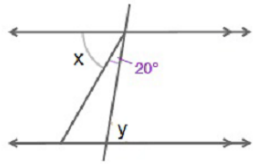


Which of the following best represents the relationship of angles p and q?

a. $m\angle q = 180 \text{ degrees} - m\angle p$
b. $m\angle p = m\angle q$
c. $m\angle p = 2(m\angle q)$
d. $m\angle p = 180 \text{ degrees} - m\angle q$

powered by ExamView

A pair of parallel is cut by a transversal. $y = 84$ degrees.

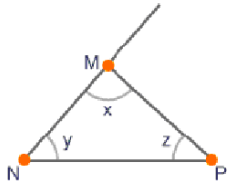


How many degrees is x?

a. 48 degrees
b. 84 degrees
c. 104 degrees
d. 64 degrees

powered by ExamView

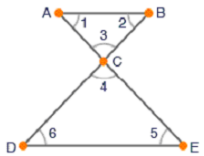
Which statement is always true for the following picture:



a. x + y + z = 90 degrees
b. x + y + z = 180 degrees
c. x + z = y
d. y + z = x

powered by ExamView

The figure shows two parallel lines AB and DE cut by the transversals $\overline{AE}$ and $\overline{BD}$:

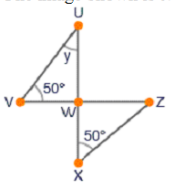


Which statement best explains the relationship between ΔACB and ΔECD?

a. $\Delta ACB \cong \Delta ECD$, because m $\angle 3$ = m $\angle 2$ and m $\angle 1$ = m $\angle 6$
b. $\Delta ACB \sim \Delta ECD$, because m $\angle 3$ = m $\angle 4$ and m $\angle 1$ = m $\angle 5$
c. $\Delta ACB \sim \Delta ECD$, because m $\angle 3$ = m $\angle 6$ and m $\angle 1$ = m $\angle 4$
d. $\Delta ACB \cong \Delta ECD$, because m $\angle 3$ = m $\angle 5$ and m $\angle 1$ = m $\angle 2$

powered by ExamView

The image shown is two similar triangles:



If y = 25 degrees, what is the measure of angle Z and why?

a. 75 degrees, $\Delta UVW \sim \Delta WXZ$
b. 25 degrees, $\Delta UVW \sim \Delta ZXW$
c. 66 degrees, $\Delta UVW \sim \Delta ZXW$
d. 61 degrees, $\Delta UVW \sim \Delta WXZ$