تم تحميل هذا الملف من موقع المناهج الإماراتية

نموذج اختبار وفق الهيكل الوزاري الجزء الالكتروني

تاريخ إضافة الملف على موقع المناهج: 2024-05-26 15:51:55

إعداد: أحمد عطا

التواصل الاجتماعي بحسب الصف الحادي عشر العام




اضغط هنا للحصول على جميع روابط "الصف الحادي عشر العام"

روابط مواد الصف الحادي عشر العام على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف الحادي عشر العام والمادة رياضيات في الفصل الثالث

1	مراجعة تجميعة وفق الهيكل الوزاري منهج بريدج
2	تجميعة أسئلة الكتاب وفق الهيكل الوزاري منهج بريدج
3	تجميعة أسئلة الكتاب وفق الهيكل الوزاري
4	الهيكل الوزاري الجديد منهج بريدج المسار العام
5	الدروس المقررة في المادة منهج بريدج بعد التعديل

هيكل الاختبار

11 General

T3

MATH 2023-2024

MR – AHMED ATA

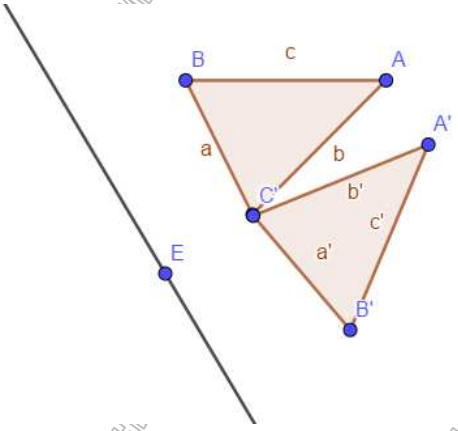
البرنامج المميز

الجزء الالكتروني

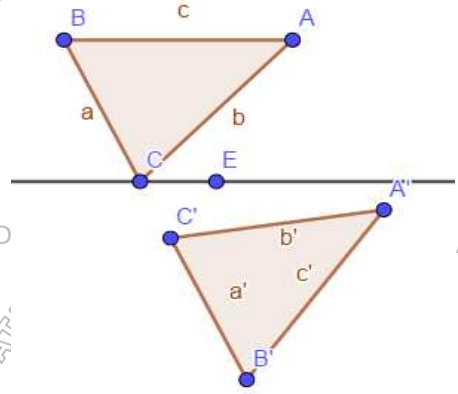
https://t.me/ahmedatamath Phone 0566010255 0502070147 - 0568048067

1

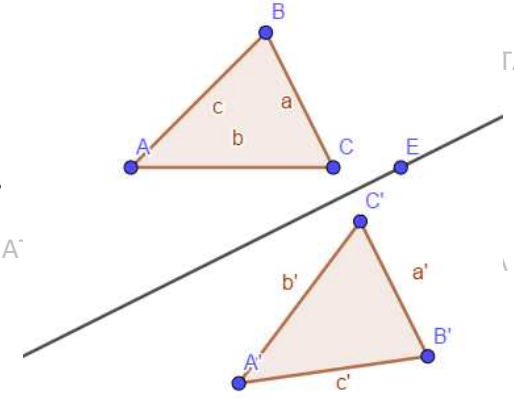
Which figure represents reflection ABC about line E



a)



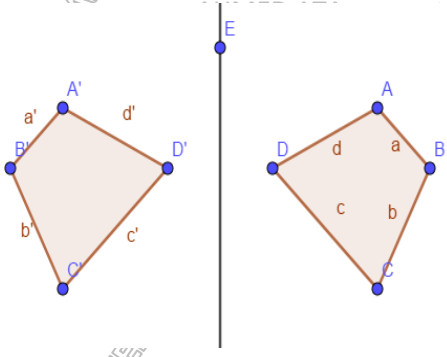
b)



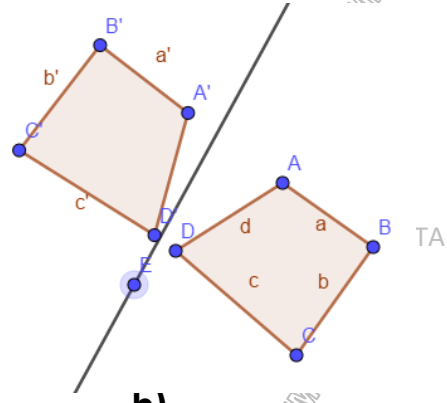
c)

2

Which figure represents reflection ABCD about line E



a)



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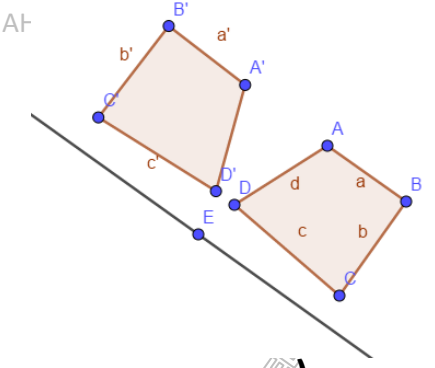
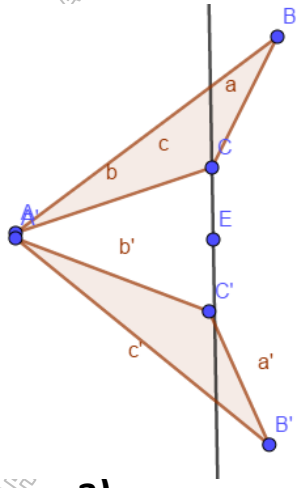


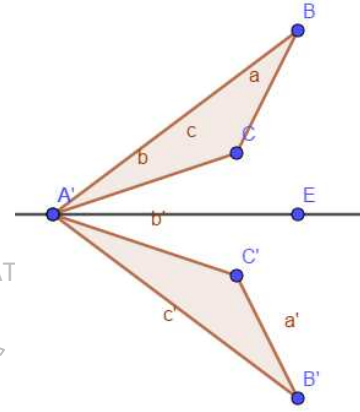
c)

3

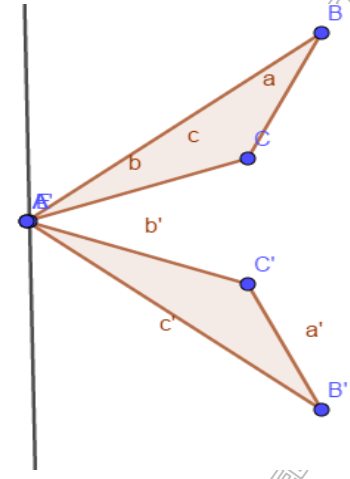
Which figure represents reflection ABC about line E



a)



b)



c)

4

Which of the following is the reflection of the point $E(-7,1)$ in the $x-axis$?

$a)\ E'(-7,-1)$

$b)\ E'(7,-1)$

$c)\ E'(7,1)$

$d)\ E'(-1,-7)$

The coordinates of the vertices of ΔABC are A(-3, 1), B(1, 5), and C(7, 0). Which are the coordinates of the image, ΔA'B'C', under the reflection of the triangle in the line y = x.

$a)\ A'(-3,-1), B'(-1,-5), C'(-7,0)$

$b)\ A'(3,1), B'(-1,-5), C'(-7,0)$

$c)\ A'(1,-3), B'(5,1), C'(0,7)$

$d)\ A'(-1,3), B'(-5,-1), C'(0,-7)$

6

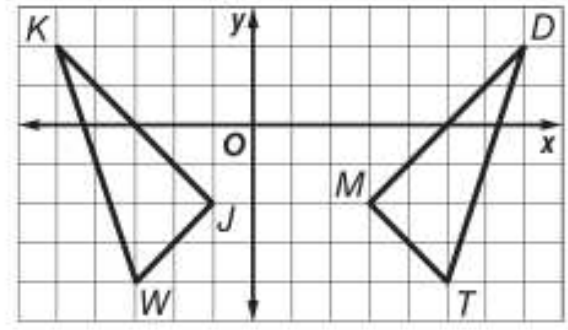
In which line is ΔMDT the reflection of ΔJKW?

$a)\ y = 1$

$b)\ x = 3$

$c)\ x = 1$

$d)\ x = 2$



7

Which is the reflection of $P(-3, 10)$ in the line $y = x$?

$a)$ $P'(-3, 10)$

$b)$ $P'(3, 10)$

$c)$ $P'(10, -3)$

$d)$ $P'(-10, 3)$

8

In which pair of lines is the line segment with endpoints P"(10, 0) and Q"(12, 4) the result of a double reflection of the line segment with endpoints P(0, 0) and Q(2, 4)?

$a)\ x = 3\ and\ x = 7$

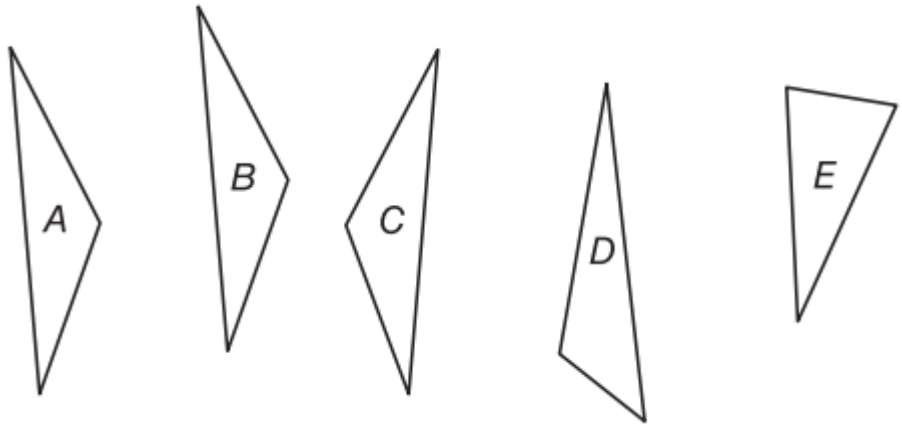
$b)\ x = 3\ and\ x = 8$

$c)\ x = 2\ and\ x = 8$

$d)\ x = 6\ and\ x = 8$

9

Which of the following figures appears to be the reflection of Figure A in some line?



10

The vertices of parallelogram ABCD are A(-3, 0), B(-1, 3), C(-1, -2), and D(-3, -5). If the figure is translated 4 units to the right and 2 units up, what are the coordinates of vertex B′?

$a)\ B'(3,5)$

$b)\ B'(3,1)$

$c)\ B'(5,1)$

$d)\ B'(-5,5)$

11

Triangle ABC is to be translated to △A'B'C' by using the following rule.

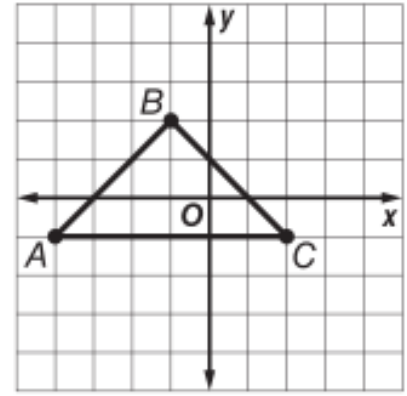
(x, y) → (x - 2, y + 3) What will be the coordinates of point B'?

$a)\ B'(3,5)$

$b)\ B'(-3,5)$

$c)\ B'(5,-3)$

$d)\ B'(-5,5)$



12

The vertices of △ABC are A(0.5, 8), B(7.5, 7), and C(4.2, 2). Which set of coordinates are those of the vertices of the image that results from a translation of △ABC 3.5 units down?

$a)\ A'(0.5, 45), B'(7.5, 3), C'(4.2, 1.5)$

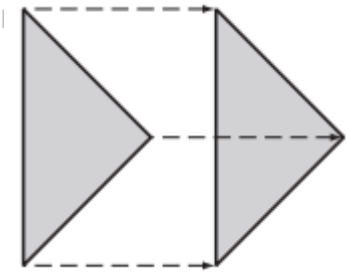
$b)\ A'(3, 1), B'(-1, -5), C'(-7, 0)$

$c)\ A'(0.5, 3.5), B'(7.5, 4.5), C'(4.2, 3.5)$

$d)\ A'(-1, 3), B'(-5, -1), C'(0, -7)$

13

Which of the following transformations is shown in the figure?



a) Reflection

b) rotation

c) translation

d) Glide reflection

14

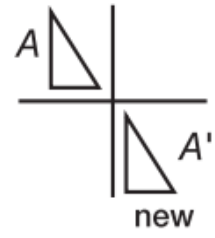
Which diagram shows a translation of figure A?

A original

B original

C original

D original



15

Quadrilateral QUAD has vertices as shown in the coordinate plane below.

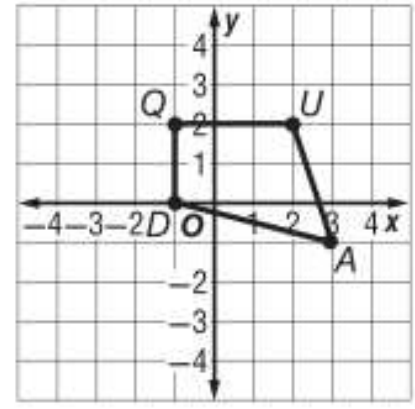
Which transformation will place two vertices at (5, 2) and (6, -1)?

$a)\ (x, y) \rightarrow (x + 3, y + 1)$

$b)\ (x, y) \rightarrow (x + 3, y)$

$c)\ (x, y) \rightarrow (x + 2, y + 1)$

$d)\ (x, y) \rightarrow (x + 1, y + 2)$



16

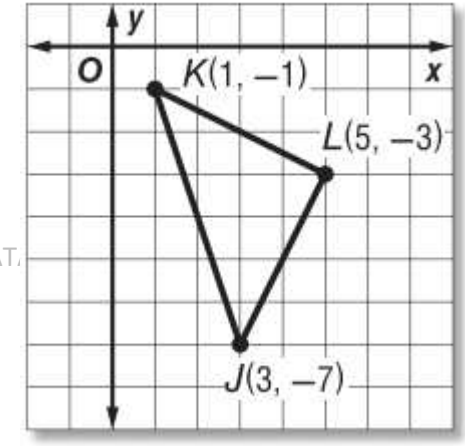
Triangle JKL is shown at the right. What is the image of point J after a rotation 270° counterclockwise about the origin?

$a)\ (-3,-7)$

$b)\ (-7,3)$

$c)\ (-7,-3)$

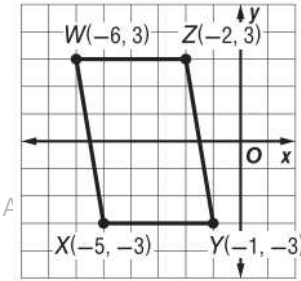
$d)\ (7,-3)$

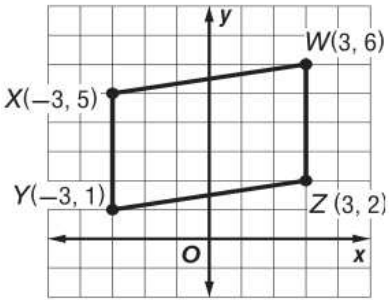


17

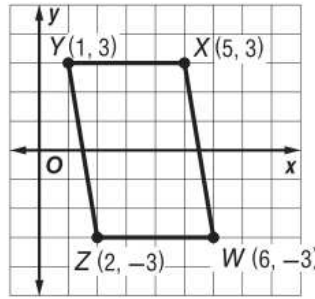
Parallelogram WXYZ is rotated 180° counterclockwise about the origin.

Which of these graphs represents the resulting image?

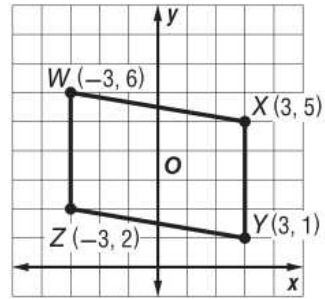




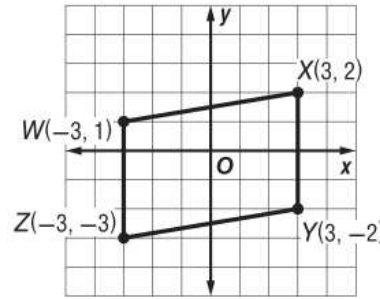
a)



b)



c)



d)

18

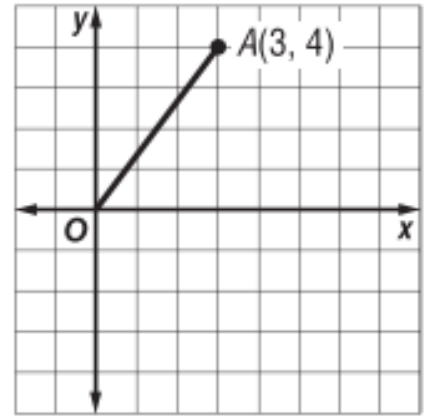
One vertex of a square is point A in the diagram below. The square is rotated 180° about the origin. What are the coordinates of A', the image of A under the rotation?

$a)\ (-3,-4)$

$b)\ (-3,4)$

$c)\ (3,-4)$

$d)\ (-4,-3)$



19

Under which rotation about the origin will P'(-6, 1) be the image of P(1, 6)?

$a)$ $90°$ $counterclockwise$

$b)$ $270°$ $counterclockwise$

$c)$ $270°$ $clockwise$

$d)$ $180°$ $counterclockwise$

20

A point in the first quadrant is rotated 90° counterclockwise. In which quadrant will the image of that point be located.

$a)$ $Quadrant\ 1$

$b)$ $Quadrant\ 2$

$c)$ $Quadrant\ 3$

$d)$ $Quadrant\ 4$

21

Point P (x, y) is a point in the second quadrant. Under which rotation about the origin will the coordinates of the image be P (-y, x)?

$a)$ $90°$ $counterclockwise$

$b)$ $270°$ $counterclockwise$

$c)$ $270°$ $clockwise$

$d)$ $180°$ $counterclockwise$

22

Which point is the image a 90° counterclockwise rotation of point $P(-4.7, 3.5)$ about the origin?

$a)\ (-3.5, 4.7)$

$b)\ (-3.5, -4.7)$

$c)\ (4.7, -3.5)$

$d)\ (-4.7, -3.5)$

23

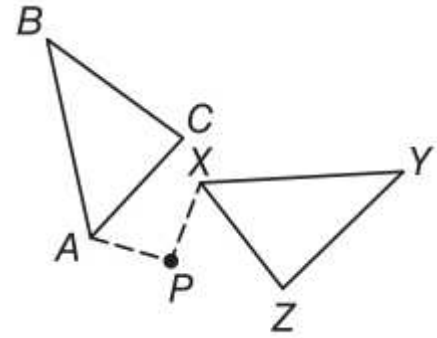
One triangle is a rotation of the other about P. Which statement is not true?

A The triangles are congruent.

B The orientation of one triangle is different from that of the other triangle.

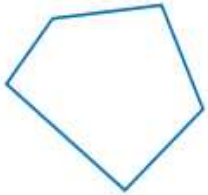
C Each of A, B, and C is rotated the same number of degrees to form ΔXYZ.

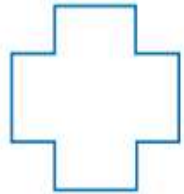
D $\angle A \cong \angle X$, $\angle B \cong \angle Y$, and $\angle C \cong \angle Z$

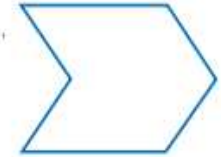


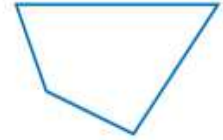
24

State whether the figure appears to have line symmetry. Write yes or no. If so, copy the figure, draw all lines of symmetry, and state their number.



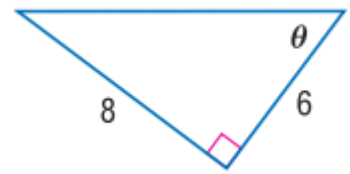






State whether the figure has rotational symmetry. Write yes or no. If so, copy the figure, locate the center of symmetry, and state the order and magnitude of symmetry.

Find the values of the six trigonometric functions for angle θ.



In a right triangle, $\angle A$ is acute. Find the values of the five-remaining trigonometric functions.

$$\cos A = \frac{4}{7}$$

28

In a right triangle, $\angle A$ is acute. Find the values of the five-remaining trigonometric functions.

$$\tan A = \frac{20}{21}$$

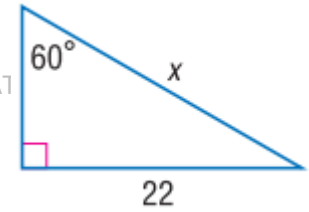
Use a trigonometric function to find the value of x. Round to the nearest tenth.

$a)\ 25.4$

$b)\ 8.3$

$c)\ 21.6$

$d)\ 10.2$



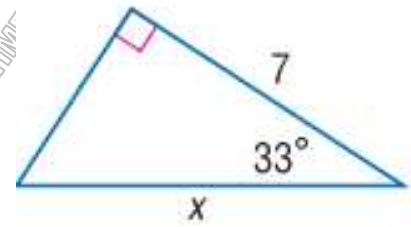
Use a trigonometric function to find the value of x. Round to the nearest tenth.

$a)\ 25.4$

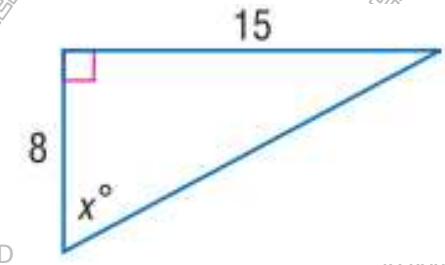
$b)\ 8.3$

$c)\ 21.6$

$d)\ 10.2$



Find the value of x. Round to the nearest tenth.



$a)\ 61.2°$

$b)\ 35.4°$

$c)\ 61.9°$

$d)\ 68.0°$

Find the value of x. Round to the nearest tenth.

***a*) 61.2°**

***b*) 35.4°**

***c*) 61.9°**

***d*) 68.0°**

33

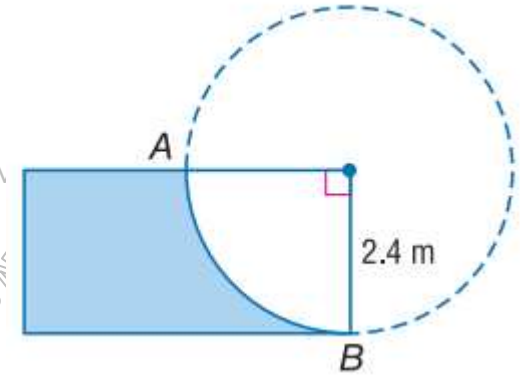
The skateboard ramp at the right is called a quarter pipe. The curved surface is determined by the radius of a circle. Find the length of the curved part of the ramp.

$a)\ 3.8\ m$

$b)\ 5.8\ m$

$c)\ 18.3\ m$

$d)\ 6.7\ m$



34

The paddlewheel of a riverboat has a diameter of 7.2 m. Find the arc length of the circle made when the paddlewheel rotates 300°.

$a)\ 3.8\ m$

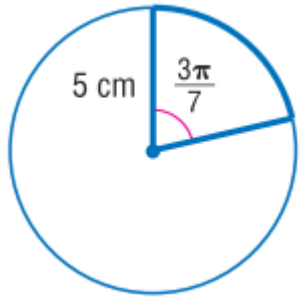
$b)\ 5.8\ m$

$c)\ 18.3\ m$

$d)\ 6.7\ m$

35

Find the length of each arc. Round to the nearest tenth.



$a)\ 6.8\ cm$

$b)\ 4.8\ cm$

$c)\ 9.3\ cm$

$d)\ 6.7\ cm$

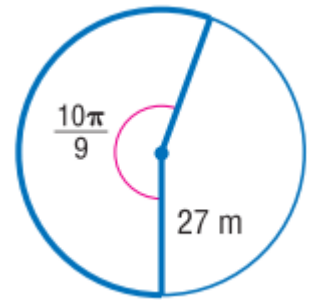
Find the length of each arc. Round to the nearest tenth.

$a)\ 39.8\ m$

$b)\ 94.2\ m$

$c)\ 68.3\ m$

$d)\ 61.7\ m$



Rewrite each degree measure in radians and each radian measure in degrees.

$330°$ $\quad -50°$ $\quad 190°$

$\frac{5\pi}{6}$ $\quad -\frac{\pi}{3}$ $\quad -\frac{7\pi}{3}$

38

Find its reference angle.

$195°$

$a)\ 45°$

$b)\ 25°$

$c)\ 75°$

$d)\ 15°$

39

Find its reference angle.

$285°$

$a)\ 45°$

$b)\ 25°$

$c)\ 75°$

$d)\ 15°$

40

Find its reference angle.

$$\frac{7\pi}{4}$$

$a)\ \frac{\pi}{4}$

$b)\ \frac{\pi}{3}$

$c)\ \frac{\pi}{2}$

$d)\ \frac{\pi}{6}$

41

Find its reference angle.

$$-\frac{\pi}{4}$$

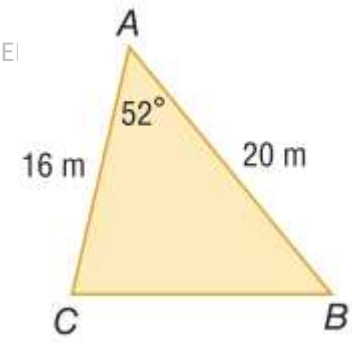
$a)\ \frac{\pi}{4}$

$b)\ \frac{\pi}{3}$

$c)\ \frac{\pi}{2}$

$d)\ \frac{\pi}{6}$

Find the area of △ABC to the nearest tenth.



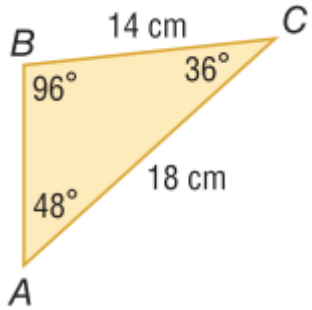
$a)\ 57.3\ m^2$

$b)\ 74.1\ m^2$

$c)\ 66.9\ m^2$

$d)\ 126.1\ m^2$

Find the area of △ABC to the nearest tenth.



$a)\ 57.3\ cm^2$

$b)\ 74.1\ cm^2$

$c)\ 66.9\ cm^2$

$d)\ 26.1\ cm^2$

Find the area of △ABC to the nearest tenth.

$$A = 138°, b = 10\ cm, c = 20\ cm$$

$a)\ 57.3\ cm^2$

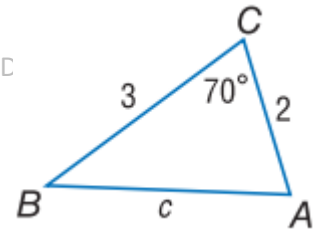
$b)\ 74.1\ cm^2$

$c)\ 66.9\ cm^2$

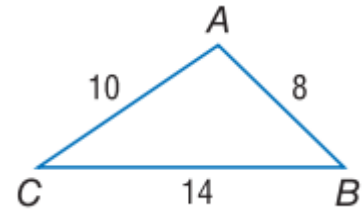
$d)\ 26.1\ cm^2$

45

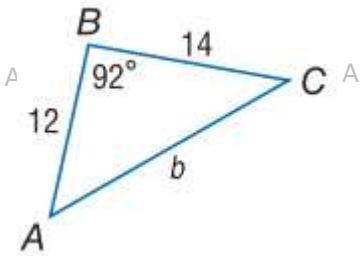
Solve each triangle. Round side lengths to the nearest tenth and angle measures to the nearest degree.



Solve each triangle. Round side lengths to the nearest tenth and angle measures to the nearest degree.



Solve each triangle. Round side lengths to the nearest tenth and angle measures to the nearest degree.



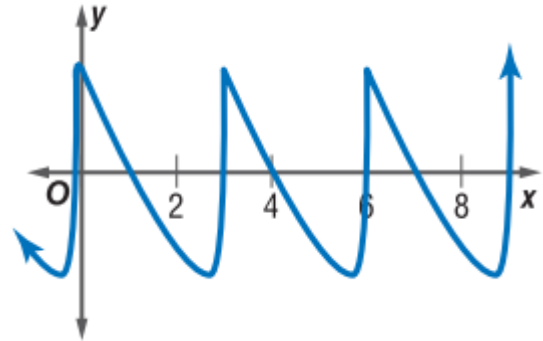
Determine the period of each function.

$a)\ 2$

$b)\ 3$

$c)\ 6$

$d)\ 8$



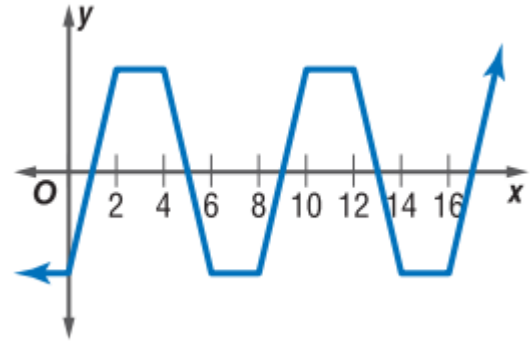
Determine the period of each function.

$a)\ 6$

$b)\ 8$

$c)\ 14$

$d)\ 16$



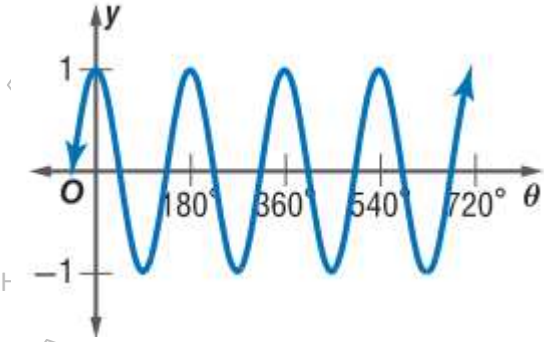
Determine the period of each function.

$a)\ 90°$

$b)\ 120°$

$c)\ 180°$

$d)\ 360°$



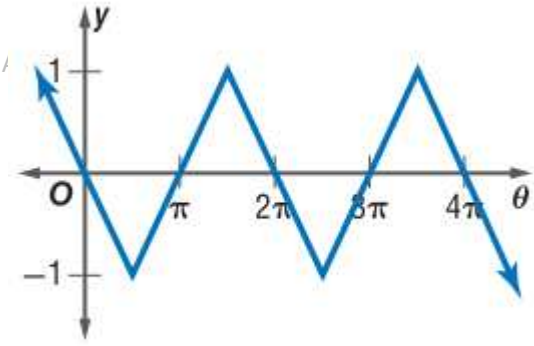
Determine the period of each function.

$a)\ \pi$

$b)\ 2\pi$

$c)\ 3\pi$

$d)\ 4\pi$



Find each value. Write angle measures in degrees and radians.

$\text{Arcsin}\left(\frac{\sqrt{3}}{2}\right)$

$\text{Arccos}\left(\frac{\sqrt{3}}{2}\right)$

$\text{Sin}^{-1}(-1)$

$\text{Tan}^{-1}\sqrt{3}$

$\text{Cos}^{-1}\left(-\frac{\sqrt{3}}{2}\right)$

$\text{Arctan}\left(-\frac{\sqrt{3}}{3}\right)$

Find each value. Round to the nearest hundredth if necessary

$\tan\left(\text{Cos}^{-1}\,1\right)$

$\tan\left[\text{Arcsin}\left(-\frac{1}{2}\right)\right]$

$\cos\left(\text{Tan}^{-1}\,\frac{3}{5}\right)$

$\sin\left(\text{Arctan}\,\sqrt{3}\right)$

$\cos\left(\text{Sin}^{-1}\,\frac{4}{9}\right)$

$\sin\left[\text{Cos}^{-1}\left(-\frac{\sqrt{2}}{2}\right)\right]$

Simplify each expression.

$$\frac{1-sin^2x}{sin^2x}$$

$a)\ cot^2x$

$b)\ tan^2x$

$c)\ sec^2x$

$d)\ cotx$

Simplify each expression.

$$\frac{1}{sin^2x} \quad \frac{cos^2x}{sin^2x}$$

$a)\ 1$

$b)\ 2$

$c)\ -1$

$d)\ 0$

Simplify each expression.

$tan\theta csc\theta$

$a)\ cos\theta$

$b)\ sin\theta$

$c)\ sec\theta$

$d)\ cotx$

Simplify each expression.

$$2(csc^2\theta - cot^2\theta)$$

$a)\ 1$

$b)\ 2$

$c)\ -1$

$d)\ 0$

Simplify each expression.

$$(1 - sin\theta)(1 + sin\theta)$$

$a)\ cos\theta$

$b)\ sin^2\theta$

$c)\ sin\theta$

$d)\ cos^2\theta$

Simplify each expression.

$(2 - 2sin^2\theta)$

$a)\ 1$

$b)\ 2$

$c)\ sin\theta$

$d)\ cos^2\theta$

هيكل الاختبار

11 General

T3

MATH 2023-2024

MR – AHMED ATA

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The vertices of △LMN are L(5, 6), M(2, 0), and N(-8, 8). If the figure is translated and the image has vertices in random order at (-2, 0), (1, 6), and (-12, 8), then which rule describes the translation?

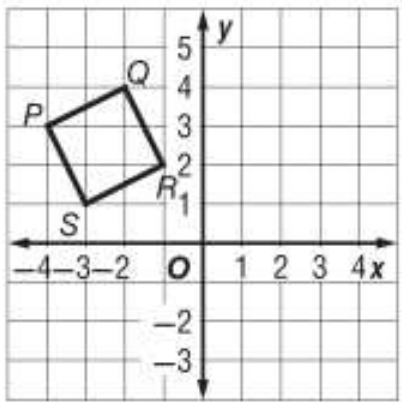
62

Right triangle GHI has vertices G(0, 0), H(3, 0), and I(0, 4). The triangle is transformed so that H' has coordinates (3, 2). Which could be the transformation applied to △GHI?

Square PQRS below is to be translated to square P'Q'R'S' by the following motion rule

$$(x, y) \rightarrow (x + 2, y - 6)$$

What will be the coordinates of vertex P'?

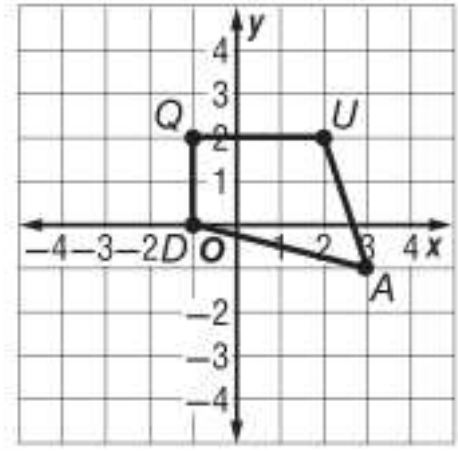


64

The vertices of parallelogram ABCD are A(-3, 0), B(-1, 3), C(-1, -2), and D(-3, -5). If the figure is translated 4 units to the right and 2 units up, what are the coordinates of vertex B'?

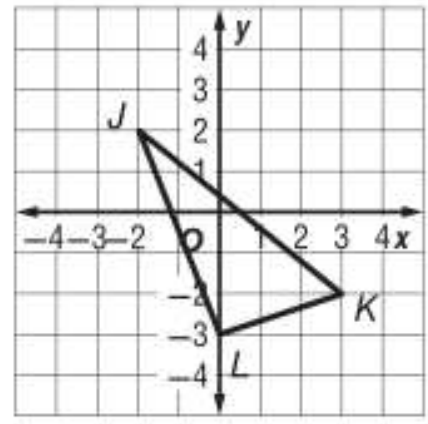
Quadrilateral QUAD is translated 4 units to the left and 3 units up.

What are the coordinates of vertex A'?



66

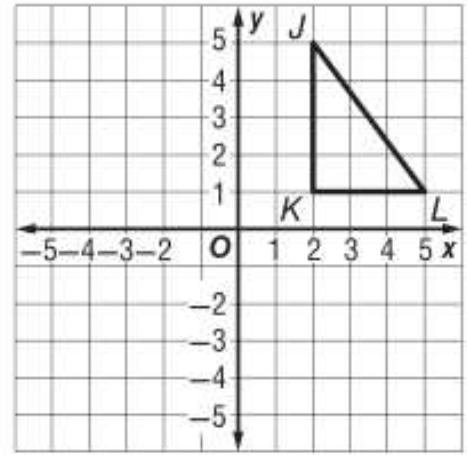
△JKL is translated 3 units left and 2 units up to create △J'K'L'. What are the coordinates of the vertices?



The vertices of △LMN are L(5, 6), M(2, 0), and N(-8, 8). If the figure is translated, and the new vertices are L'(1, 6), M'(-2, 0), and N'(-12, 8),

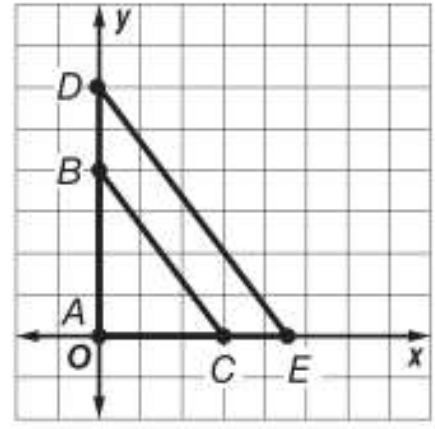
which rule describes the transformation?

Right triangle JKL is dilated to form image △J'K'L'. If the perimeter of △J'K'L' is 36 centimeters, what is the area of the image?



Triangle ABC with vertices A(0, 0), B(0, 4), and C(3, 0) is dilated to form triangle ADE.

What is the length of $\overline{DE}$ if D has coordinates (0, 5)?



70

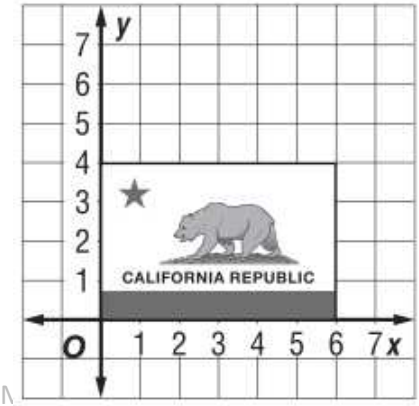
Square JKLM has vertices J(1, 0), K(2, 1), L(3, 0), and M(2, -1). If the figure is dilated with a center at the origin and with a scale factor of $\sqrt{2}$, then what is the length of each side of the dilated square?

71

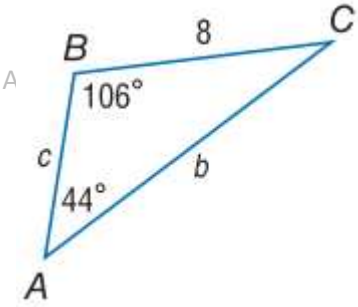
Isosceles trapezoid LMNO has vertices L(-4, -3), M(-4, 0), N(-2, 1),and O(–2, -4). If the figure is dilated with the center at the origin and with a scale factor of 1.5, what is the length of $\overline{L'M'}$ of theVdilated isosceles trapezoid?

72

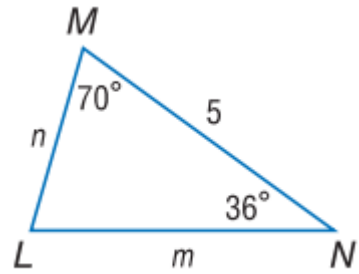
The state flag of California is shown on the grid below. Suppose the flag were enlarged so that the vertices of the new flag were (0, 0), (0, 6), (9, 6), and (9, 0). What is the ratio of the perimeter of the original flag to that of the enlarged flag.



Solve each triangle. Round side lengths to the nearest tenth and angle measures to the nearest degree.



Solve each triangle. Round side lengths to the nearest tenth and angle measures to the nearest degree.



Solve each triangle. Round side lengths to the nearest tenth and angle measures to the nearest degree.

$$\textbf{Solve } \triangle HJK \textbf{ if } H = 53°, J = 20°, \textbf{and } h = 31.$$

State the amplitude, period, phase shift, and vertical shift for each function.

$$y = 2 \sin (\theta + 45^\circ) + 1$$

State the amplitude, period, phase shift, and vertical shift for each function.

$$y = \cos 3(\theta - \pi) - 4$$

State the amplitude, period, phase shift, and vertical shift for each function.

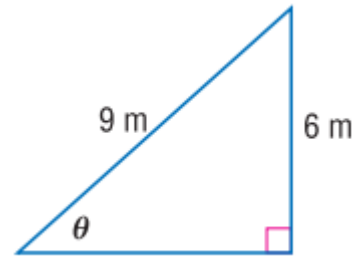
$$y = \frac{1}{4}\tan 2(\theta + 30^\circ) + 3$$

State the amplitude, period, phase shift, and vertical shift for each function.

$$y = 4 \sin \frac{1}{2}\left(\theta - \frac{\pi}{2}\right) + 5$$

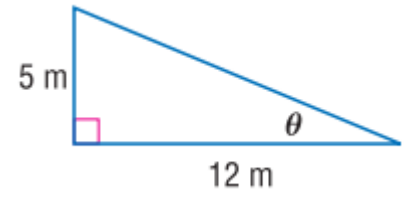
80

A water ski ramp is 6 m tall and 9 m long, as shown at the right. Write an inverse trigonometric function that can be used to find θ, the angle the ramp makes with the water. Then find the measure of the angle. Round to the nearest tenth.



81

A ski trail is shown at the right. Write an inverse trigonometric function that can be used to find θ, the angle the trail makes with the ground in the valley. Then find the angle. Round to the nearest tenth.



Simplify each expression.

$$\frac{\tan\left(\frac{\pi}{2}-\theta\right)\sec\theta}{1-\csc^2\theta}$$

$$\frac{\cos\left(\frac{\pi}{2}-\theta\right)-1}{1+\sin(-\theta)}$$

Simplify each expression.

$$\frac{\sec\theta \sin\theta + \cos\left(\frac{\pi}{2} - \theta\right)}{1 + \sec\theta}$$

$$\frac{\cot\theta \cos\theta}{\tan(-\theta)\sin\left(\frac{\pi}{2} - \theta\right)}$$

The Featured Program

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