

الصف الثاني عشر عام
Grade 12 General

EOT-Q16-30-

جزء -2-

2025-2026

K-RACHID

LIVEWORKSHEETS

Q16

Find a positive coterminal angle for 35° .	Find a negative coterminal angle for 35° .	Find a positive coterminal angle for -50° .	Find a negative coterminal angle for -50° .
A) -325° B) 395° C) 310° D) -410° <input type="checkbox"/>	A) -325° B) 395° C) 310° D) -410° <input type="checkbox"/>	A) -325° B) 395° C) 310° D) -410° <input type="checkbox"/>	A) -325° B) 395° C) 310° D) -410° <input type="checkbox"/>
A 450° angle is coterminal with:	A -210° angle is coterminal with:	Which angle is coterminal with 810° ?	Which angle is coterminal with 1110° ?
A) 30° B) 90° C) 150° D) 270° <input type="checkbox"/>	A) 30° B) 90° C) 150° D) 270° <input type="checkbox"/>	A) 30° B) 90° C) 150° D) 270° <input type="checkbox"/>	A) 30° B) 90° C) 150° D) 270° <input type="checkbox"/>

Q17

Degrees to Radians

To convert a degree measure to radians, multiply the number of degrees by $\frac{\pi \text{ radians}}{180^\circ}$.

Radians to Degrees

To convert a radian measure to degrees, multiply the number of radians by $\frac{180^\circ}{\pi \text{ radians}}$.

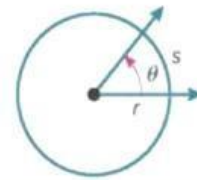
Rewrite -100° in radians	Rewrite -220° in radians	Rewrite $\frac{11\pi}{4}$ in degrees	Rewrite $\frac{7\pi}{6}$ in degrees
A) $-\frac{11\pi}{9}$ B) $\frac{11\pi}{9}$ C) $-\frac{5\pi}{9}$ D) $\frac{5\pi}{9}$	A) $-\frac{11\pi}{9}$ B) $\frac{11\pi}{9}$ C) $-\frac{5\pi}{9}$ D) $\frac{5\pi}{9}$	A) 210° B) 495° C) 120° D) 60°	A) 210° B) 495° C) 120° D) 60°
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Q18

Key Concept • Arc Length

Words: For a circle with radius r and central angle θ (in radians), the arc length s equals the product of r and θ .

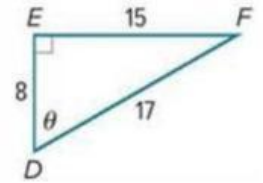
Symbols: $s = r\theta$



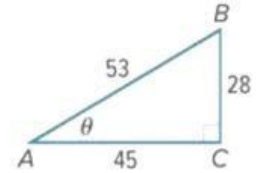
Which formula is used for arc length when θ is in radians?	A wheel has radius 10 cm and rotates through $\frac{3\pi}{5}$ radians. Find s .	If $s = 15\pi$ cm and $r = 5$ cm, what is θ in radians?
A) $s = r\theta$ B) $s = \pi r^2$ C) $s = 2\pi r$ D) $s = \frac{\theta}{r}$ <input type="text"/>	A) 2π cm B) 15π cm C) 3π cm D) 6π cm <input type="text"/>	A) 2π cm B) 15π cm C) 3π cm D) 6π cm <input type="text"/>

Q19

Find $\sin \theta$	Find $\cos \theta$	Find $\tan \theta$
A) $\frac{15}{8}$ B) $\frac{15}{17}$ C) $\frac{8}{17}$ D) $\frac{8}{15}$ <input type="text"/>	A) $\frac{15}{8}$ B) $\frac{15}{17}$ C) $\frac{8}{17}$ D) $\frac{8}{15}$ <input type="text"/>	A) $\frac{15}{8}$ B) $\frac{15}{17}$ C) $\frac{8}{17}$ D) $\frac{8}{15}$ <input type="text"/>



Find $\sin \theta$	Find $\cos \theta$	Find $\tan \theta$
A) $\frac{28}{53}$ B) $\frac{28}{45}$ C) $\frac{53}{45}$ D) $\frac{45}{53}$ <input type="text"/>	A) $\frac{28}{53}$ B) $\frac{28}{45}$ C) $\frac{53}{45}$ D) $\frac{45}{53}$ <input type="text"/>	A) $\frac{28}{53}$ B) $\frac{28}{45}$ C) $\frac{53}{45}$ D) $\frac{45}{53}$ <input type="text"/>



Q20

<p>If $\sin \theta = \frac{3}{5}$, then $\csc \theta =$</p>	<p>If $\cos \theta = \frac{8}{17}$, then $\sec \theta =$</p>	<p>If $\tan \theta = \frac{5}{12}$, then $\cot \theta =$</p>	<p>If $\cos A = \frac{9}{13}$, then $\sin A =$</p>
<p>A) $\frac{17}{8}$ B) $\frac{2\sqrt{22}}{13}$ C) $\frac{5}{3}$ D) $\frac{12}{5}$ <input type="text"/></p>	<p>A) $\frac{17}{8}$ B) $\frac{2\sqrt{22}}{13}$ C) $\frac{5}{3}$ D) $\frac{12}{5}$ <input type="text"/></p>	<p>A) $\frac{17}{8}$ B) $\frac{2\sqrt{22}}{13}$ C) $\frac{5}{3}$ D) $\frac{12}{5}$ <input type="text"/></p>	<p>A) $\frac{17}{8}$ B) $\frac{2\sqrt{22}}{13}$ C) $\frac{5}{3}$ D) $\frac{12}{5}$ <input type="text"/></p>
<p>If $\sec B = \frac{11}{3}$, then $\tan B =$</p>	<p>If $\sec B = \frac{11}{3}$, then $\csc B =$</p>	<p>If $\sec B = \frac{11}{3}$, then $\cot B =$</p>	<p>If $\tan C = 3$, then $\sin C =$</p>
<p>A) $\frac{4\sqrt{7}}{3}$ B) $\frac{11}{4\sqrt{7}}$ C) $\frac{4\sqrt{7}}{11}$ D) $\frac{3\sqrt{7}}{28}$ <input type="text"/></p>	<p>A) $\frac{4\sqrt{7}}{3}$ B) $\frac{11}{4\sqrt{7}}$ C) $\frac{4\sqrt{7}}{11}$ D) $\frac{3\sqrt{7}}{28}$ <input type="text"/></p>	<p>A) $\frac{4\sqrt{7}}{3}$ B) $\frac{11}{4\sqrt{7}}$ C) $\frac{4\sqrt{7}}{11}$ D) $\frac{3\sqrt{7}}{28}$ <input type="text"/></p>	<p>A) $\frac{3}{\sqrt{10}}$ B) $\sqrt{10}$ C) $\frac{\sqrt{10}}{10}$ D) $\frac{\sqrt{10}}{3}$ <input type="text"/></p>

Q21

Sketch each angle. Then find the measure of its reference angle.

155°	45°	-150°	-60°	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
A) 45° B) 30° C) 25° D) 60°	A) 45° B) 30° C) 25° D) 60°	A) 45° B) 30° C) 25° D) 60°	A) 45° B) 30° C) 25° D) 60°	
$\frac{11\pi}{6}$	$\frac{4\pi}{9}$	$-\frac{8\pi}{3}$	$-\frac{11\pi}{9}$	$\frac{23\pi}{6}$
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A) $\frac{2\pi}{9}$ B) $\frac{\pi}{6}$ C) $\frac{4\pi}{9}$ D) $\frac{\pi}{3}$	A) $\frac{2\pi}{9}$ B) $\frac{\pi}{6}$ C) $\frac{4\pi}{9}$ D) $\frac{\pi}{3}$	A) $\frac{2\pi}{9}$ B) $\frac{\pi}{6}$ C) $\frac{4\pi}{9}$ D) $\frac{\pi}{3}$	A) $\frac{2\pi}{9}$ B) $\frac{\pi}{6}$ C) $\frac{4\pi}{9}$ D) $\frac{\pi}{3}$	A) $\frac{2\pi}{9}$ B) $\frac{\pi}{6}$ C) $\frac{4\pi}{9}$ D) $\frac{\pi}{3}$

Q22

Find the exact value of each trigonometric function.

$\tan \frac{7\pi}{4}$	$\cos \left(-\frac{11\pi}{4}\right)$	$\sin (-150^\circ)$
A) -1 B) $\sqrt{2}$ <input type="text"/> C) $-\frac{\sqrt{2}}{2}$ D) $\frac{12}{5}$	A) -1 B) $\sqrt{2}$ <input type="text"/> C) $-\frac{\sqrt{2}}{2}$ D) $\frac{12}{5}$	A) $-\frac{1}{2}$ B) $\sqrt{3}$ <input type="text"/> C) $-\sqrt{2}$ D) $\frac{1}{2}$
$\csc \frac{\pi}{4}$	$\sec 225^\circ$	$\cot 30^\circ$
A) -1 B) $\sqrt{2}$ <input type="text"/> C) $-\frac{\sqrt{2}}{2}$ D) $\frac{12}{5}$	A) $-\frac{1}{2}$ B) $\sqrt{3}$ <input type="text"/> C) $-\sqrt{2}$ D) $\frac{1}{2}$	A) $-\frac{1}{2}$ B) $\sqrt{3}$ <input type="text"/> C) $-\sqrt{2}$ D) $\frac{1}{2}$

Q23

The terminal side of angle θ in standard position intersects the unit circle at each point P .

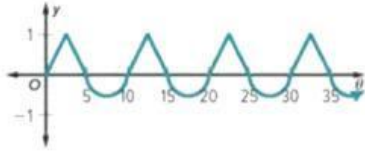
Find $\cos \theta$ and $\sin \theta$.

$$P(\cos \theta, \sin \theta)$$

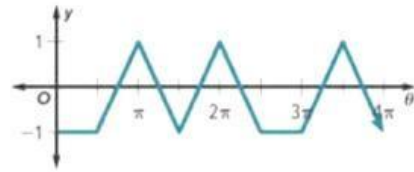
$P\left(-\frac{12}{13}, \frac{5}{13}\right)$	$P\left(-\frac{4}{5}, -\frac{3}{5}\right)$	The point $\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$ lies in which quadrant?	Which angle has unit-circle point $\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$?
A) $\cos \theta = \frac{5}{13}$ $\sin \theta = \frac{12}{13}$	A) $\cos \theta = -\frac{3}{5}$ $\sin \theta = -\frac{4}{5}$	A) Quadrant I	A) 60°
B) $\cos \theta = \frac{5}{13}$ $\sin \theta = -\frac{12}{13}$ <input type="text"/>	B) $\cos \theta = -\frac{4}{5}$ $\sin \theta = -\frac{3}{5}$ <input type="text"/>	B) Quadrant II <input type="text"/>	B) 120° <input type="text"/>
C) $\cos \theta = -\frac{12}{13}$ $\sin \theta = \frac{5}{13}$	C) $\cos \theta = -\frac{5}{4}$ $\sin \theta = -\frac{3}{5}$	C) Quadrant III	C) 240°
D) $\cos \theta = -\frac{12}{13}$ $\sin \theta = -\frac{5}{13}$	D) $\cos \theta = \frac{3}{5}$ $\sin \theta = \frac{4}{5}$	D) Quadrant IV	D) 300°

Q24

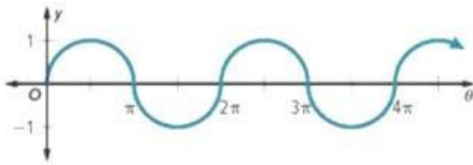
Determine the period of the function.



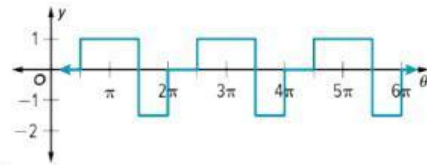
- A) 10 B) 2π C) $\frac{5\pi}{2}$ D) 5
-



- A) 10 B) 2π C) $\frac{5\pi}{2}$ D) 5
-



- A) 10 B) 2π C) $\frac{5\pi}{2}$ D) 5
-



- A) 10 B) 2π C) $\frac{5\pi}{2}$ D) 5
-

Q25

Find the exact value of each expression.

$\cos \frac{10\pi}{3}$	$\sin \frac{21\pi}{4}$	$\cos \frac{11\pi}{3}$
A) $-\frac{1}{2}$ B) $\frac{\sqrt{3}}{2}$ <input type="text"/>	A) $-\frac{1}{2}$ B) $\frac{\sqrt{3}}{2}$ <input type="text"/>	A) $-\frac{1}{2}$ B) $\frac{\sqrt{3}}{2}$ <input type="text"/>
C) $-\frac{\sqrt{2}}{2}$ D) $\frac{1}{2}$	C) $-\frac{\sqrt{2}}{2}$ D) $\frac{1}{2}$	C) $-\frac{\sqrt{2}}{2}$ D) $\frac{1}{2}$
$\cos 60^\circ$	$\sin 600^\circ$	$\sin \frac{8\pi}{3}$
A) $\frac{4}{5}$ B) $-\frac{\sqrt{3}}{2}$ <input type="text"/>	A) $\frac{4}{5}$ B) $-\frac{\sqrt{3}}{2}$ <input type="text"/>	A) $-\frac{1}{2}$ B) $\frac{\sqrt{3}}{2}$ <input type="text"/>
C) $\frac{1}{2}$ D) $\frac{1}{5}$	C) $\frac{1}{2}$ D) $\frac{1}{5}$	C) $-\frac{\sqrt{2}}{2}$ D) $\frac{1}{2}$

Q26

What is the amplitude of the parent function $y = \sin x$? A) 0 B) 1 <input type="text"/> C) 360 D) -1	What is the period of $y = \cos x$? A) 90° B) 180° <input type="text"/> C) 360° D) 720°	What is the domain of $y = \sin x$? A) $-1 \leq y \leq 1$ B) All real numbers C) $0 \leq x \leq 360$ <input type="text"/> D) Positive numbers only	What is the range of $y = \cos x$? A) $0 \leq y \leq 1$ B) All real numbers C) $-1 \leq y \leq 1$ <input type="text"/> D) $-360 \leq y \leq 360$
What is the midline of the parent sine function? A) $y = 0$ B) $x = 0$ C) $y = 1$ <input type="text"/> D) $x = 1$	Between which values do the sine and cosine graphs oscillate? A) 0 and 1 B) -360 and 360 C) -2 and 2 <input type="text"/> D) -1 and 1	Which function starts at (0,1)? A) $y = \cos x$ B) $y = \sin x$ C) $y = \tan x$ <input type="text"/> D) $y = x^2$	What is the maximum value of the parent sine function? A) -1 B) 0 <input type="text"/> C) 1 D) 2

Q27

Find the amplitude of each function.

Amplitude

|a|

$y = 2 \cos \theta$	$y = 2 \sin \theta$	$y = \cos \frac{1}{2} \theta$
A) $\frac{3}{4}$ B) 2 C) 1 D) $\frac{1}{2}$ E) 3 <input type="text"/>	A) $\frac{3}{4}$ B) 2 C) 1 D) $\frac{1}{2}$ E) 3 <input type="text"/>	A) $\frac{3}{4}$ B) 2 C) 1 D) $\frac{1}{2}$ E) 3 <input type="text"/>
$y = \frac{3}{4} \cos \theta$	$y = \frac{1}{2} \sin 2\theta$	$y = 3 \cos 2\theta$
A) $\frac{3}{4}$ B) 2 C) 1 D) $\frac{1}{2}$ E) 3 <input type="text"/>	A) $\frac{3}{4}$ B) 2 C) 1 D) $\frac{1}{2}$ E) 3 <input type="text"/>	A) $\frac{3}{4}$ B) 2 C) 1 D) $\frac{1}{2}$ E) 3 <input type="text"/>

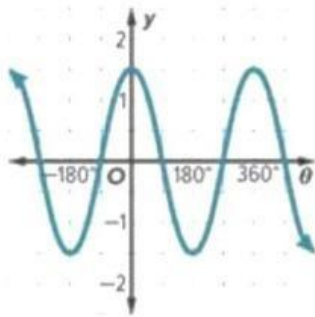
Q27

Find the period of each function.

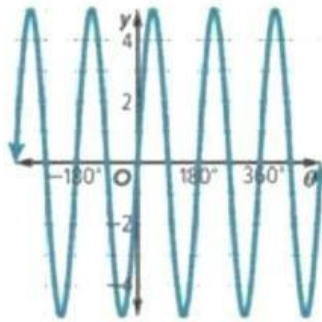
	Period	$\frac{360^\circ}{b}$
$y = 2 \cos \theta$		
A) 90° B) 720° C) 180° D) 360° <input type="text"/>	A) 90° B) 720° C) 180° D) 360° <input type="text"/>	A) 90° B) 720° C) 180° D) 360° <input type="text"/>
$y = \frac{3}{4} \cos \theta$		
A) $\frac{\pi}{2}$ B) 4π C) π D) 2π <input type="text"/>	A) $\frac{\pi}{2}$ B) 4π C) π D) 2π <input type="text"/>	A) $\frac{\pi}{2}$ B) 4π C) π D) 2π <input type="text"/>

Q28

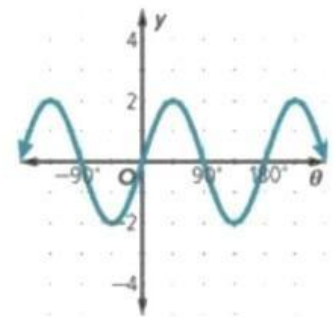
For each graph, identify the period



- A) 90°
- B) 360°
- C) 180°
- D) 270°



- A) 90°
- B) 360°
- C) 180°
- D) 270°



- A) 90°
- B) 360°
- C) 180°
- D) 270°