Mathematics
2025-2026
EOT Term-3-
وزارة التربية و التعليم
Term-3
MR Rachid K

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°	$A)$ -325° $B)$ 395° $C)$ 310° $D)$ -410°	$A)$ -325° $B)$ 395° $C)$ 310° $D)$ -410°	$A)$ -325° $B)$ 395° $C)$ 310° $D)$ -410°
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°	$A)$ 30° $B)$ 90° $C)$ 150° $D)$ 270°	$A)$ 30° $B)$ 90° $C)$ 150° $D)$ 270°	$A)$ 30° $B)$ 90° $C)$ 150° $D)$ 270°

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LIVEWORKSHEETS

Q17

Degrees to Radians

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

Radians to Degrees

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

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°

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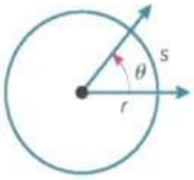
LIVEWORKSHEETS

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 = rθ $B)$ s = πr² $C)$ s = 2πr $D)$ $s = \frac{\theta}{r}$	$A)$ 2π cm $B)$ 15π cm $C)$ 3π cm $D)$ 6π cm	$A)$ 2π cm $B)$ 15π cm $C)$ 3π cm $D)$ 6π cm

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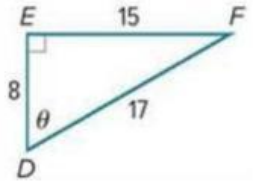
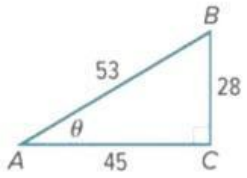
LIVEWORKSHEETS

Q19

Find $\sin\theta$	Find $\cos\theta$	Find $\tan\theta$
$A)\ \frac{15}{8}$ $B)\ \frac{15}{17}$ $C)\ \frac{8}{17}$ $D)\ \frac{8}{15}$	$A)\ \frac{15}{8}$ $B)\ \frac{15}{17}$ $C)\ \frac{8}{17}$ $D)\ \frac{8}{15}$	$A)\ \frac{15}{8}$ $B)\ \frac{15}{17}$ $C)\ \frac{8}{17}$ $D)\ \frac{8}{15}$



Find $\sin\theta$	Find $\cos\theta$	Find $\tan\theta$
$A)\ \frac{28}{53}$ $B)\ \frac{28}{45}$ $C)\ \frac{53}{45}$ $D)\ \frac{45}{53}$	$A)\ \frac{28}{53}$ $B)\ \frac{28}{45}$ $C)\ \frac{53}{45}$ $D)\ \frac{45}{53}$	$A)\ \frac{28}{53}$ $B)\ \frac{28}{45}$ $C)\ \frac{53}{45}$ $D)\ \frac{45}{53}$



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LIVEWORKSHEETS

Q20

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

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LIVEWORKSHEETS

Q21

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

$155°$	$45°$	$-150°$	$-60°$
$A)\ 45°$ $B)\ 30°$ $C)\ 25°$ $D)\ 60°$	$A)\ 45°$ $B)\ 30°$ $C)\ 25°$ $D)\ 60°$	$A)\ 45°$ $B)\ 30°$ $C)\ 25°$ $D)\ 60°$	$A)\ 45°$ $B)\ 30°$ $C)\ 25°$ $D)\ 60°$

$\frac{11\pi}{6}$	$\frac{4\pi}{9}$	$-\frac{8\pi}{3}$	$-\frac{11\pi}{9}$	$\frac{23\pi}{6}$
$A)\ \frac{2\pi}{9}$ $B)\ \frac{\pi}{6}$ $C)\ \frac{4\pi}{9}$ $D)\ \frac{\pi}{3}$	$A)\ \frac{2\pi}{9}$ $B)\ \frac{\pi}{6}$ $C)\ \frac{4\pi}{9}$ $D)\ \frac{\pi}{3}$	$A)\ \frac{2\pi}{9}$ $B)\ \frac{\pi}{6}$ $C)\ \frac{4\pi}{9}$ $D)\ \frac{\pi}{3}$	$A)\ \frac{2\pi}{9}$ $B)\ \frac{\pi}{6}$ $C)\ \frac{4\pi}{9}$ $D)\ \frac{\pi}{3}$	$A)\ \frac{2\pi}{9}$ $B)\ \frac{\pi}{6}$ $C)\ \frac{4\pi}{9}$ $D)\ \frac{\pi}{3}$

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LIVEWORKSHEETS

Q22

Find the exact value of each trigonometric function.

$\tan \frac{7\pi}{4}$	$\cos\left(-\frac{11\pi}{4}\right)$	$\sin(-150°)$
$A)\ -1$ $B)\ \sqrt{2}$ $C)\ -\frac{\sqrt{2}}{2}$ $D)\ \frac{12}{5}$	$A)\ -1$ $B)\ \sqrt{2}$ $C)\ -\frac{\sqrt{2}}{2}$ $D)\ \frac{12}{5}$	$A)\ -\frac{1}{2}$ $B)\ \sqrt{3}$ $C)\ -\sqrt{2}$ $D)\ \frac{1}{2}$
$\csc \frac{\pi}{4}$	$\sec 225°$	$\cot 30°$
$A)\ -1$ $B)\ \sqrt{2}$ $C)\ -\frac{\sqrt{2}}{2}$ $D)\ \frac{12}{5}$	$A)\ -\frac{1}{2}$ $B)\ \sqrt{3}$ $C)\ -\sqrt{2}$ $D)\ \frac{1}{2}$	$A)\ -\frac{1}{2}$ $B)\ \sqrt{3}$ $C)\ -\sqrt{2}$ $D)\ \frac{1}{2}$

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LIVEWORKSHEETS

Q23

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

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

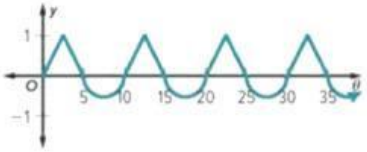
$P\left(-\frac{12}{13}, \frac{5}{13}\right)$	$P\left(-\frac{4}{5}, -\frac{3}{5}\right)$
$A)\ \cos\theta = \frac{5}{13}$, $\sin\theta = \frac{12}{13}$	$A)\ \cos\theta = -\frac{3}{5}$, $\sin\theta = -\frac{4}{5}$
$B)\ \cos\theta = \frac{5}{13}$, $\sin\theta = -\frac{12}{13}$	$B)\ \cos\theta = -\frac{4}{5}$, $\sin\theta = -\frac{3}{5}$
$C)\ \cos\theta = -\frac{12}{13}$, $\sin\theta = \frac{5}{13}$	$C)\ \cos\theta = -\frac{5}{4}$, $\sin\theta = -\frac{3}{5}$
$D)\ \cos\theta = -\frac{12}{13}$, $\sin\theta = -\frac{5}{13}$	$D)\ \cos\theta = \frac{3}{5}$, $\sin\theta = \frac{4}{5}$

The point $\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$ lies in which quadrant?	Which angle has unit−circle point $\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$?
$A)$ Quadrant I	$A)\ 60°$
$B)$ Quadrant II	$B)\ 120°$
$C)$ Quadrant III	$C)\ 240°$
$D)$ Quadrant IV	$D)\ 300°$

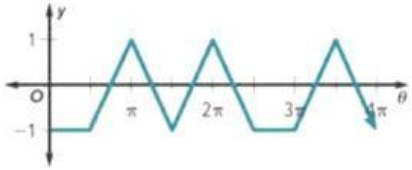
LIVEWORKSHEETS

Q24

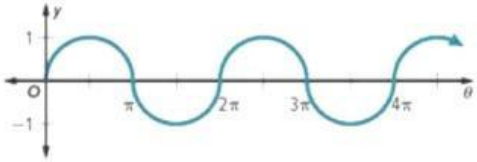
Determine the period of the function.



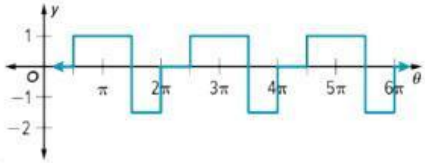
$A)\ 10 \qquad B)\ 2\pi \qquad C)\ \frac{5\pi}{2} \qquad D)\ 5$



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



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



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

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LIVEWORKSHEETS

Q25

Find the exact value of each expression.

$\cos \frac{10\pi}{3}$	$\sin \frac{21\pi}{4}$	$\cos \frac{11\pi}{3}$
$A)\ -\frac{1}{2}$ $B)\ \frac{\sqrt{3}}{2}$ $C)\ -\frac{\sqrt{2}}{2}$ $D)\ \frac{1}{2}$	$A)\ -\frac{1}{2}$ $B)\ \frac{\sqrt{3}}{2}$ $C)\ -\frac{\sqrt{2}}{2}$ $D)\ \frac{1}{2}$	$A)\ -\frac{1}{2}$ $B)\ \frac{\sqrt{3}}{2}$ $C)\ -\frac{\sqrt{2}}{2}$ $D)\ \frac{1}{2}$
$\cos 60°$	$\sin 600°$	$\sin \frac{8\pi}{3}$
$A)\ \frac{4}{5}$ $B)\ -\frac{\sqrt{3}}{2}$ $C)\ \frac{1}{2}$ $D)\ \frac{1}{5}$	$A)\ \frac{4}{5}$ $B)\ -\frac{\sqrt{3}}{2}$ $C)\ \frac{1}{2}$ $D)\ \frac{1}{5}$	$A)\ -\frac{1}{2}$ $B)\ \frac{\sqrt{3}}{2}$ $C)\ -\frac{\sqrt{2}}{2}$ $D)\ \frac{1}{2}$

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LIVEWORKSHEETS

Q26

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

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LIVEWORKSHEETS

Q27

Find the amplitude of each function.

Amplitude	$\lvert a \rvert$

$y = 2\cos\theta$	$y = 2\sin\theta$	$y = \cos\frac{1}{2}\theta$
$A)\ \frac{3}{4}$ $B)\ 2$ $C)\ 1$ $D)\ \frac{1}{2}$ $E)\ 3$	$A)\ \frac{3}{4}$ $B)\ 2$ $C)\ 1$ $D)\ \frac{1}{2}$ $E)\ 3$	$A)\ \frac{3}{4}$ $B)\ 2$ $C)\ 1$ $D)\ \frac{1}{2}$ $E)\ 3$
$y = \frac{3}{4}\cos\theta$	$y = \frac{1}{2}\sin 2\theta$	$y = 3\cos 2\theta$
$A)\ \frac{3}{4}$ $B)\ 2$ $C)\ 1$ $D)\ \frac{1}{2}$ $E)\ 3$	$A)\ \frac{3}{4}$ $B)\ 2$ $C)\ 1$ $D)\ \frac{1}{2}$ $E)\ 3$	$A)\ \frac{3}{4}$ $B)\ 2$ $C)\ 1$ $D)\ \frac{1}{2}$ $E)\ 3$

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LIVEWORKSHEETS

Q27

Find the period of each function.

Period	$\frac{360°}{b}$

$y = 2\cos\theta$	$y = 2\sin\theta$	$y = \cos\frac{1}{2}\theta$
$A)\ 90°$ $B)\ 720°$ $C)180°$ $D)\ 360°$	$A)\ 90°$ $B)\ 720°$ $C)180°$ $D)\ 360°$	$A)\ 90°$ $B)\ 720°$ $C)180°$ $D)\ 360°$
$y = \frac{3}{4}\cos\theta$	$y = \frac{1}{2}\sin2\theta$	$y = 3\cos2\theta$
$A)\frac{\pi}{2}$ $B)\ 4\pi$ $C)\pi$ $D)\ 2\pi$	$A)\frac{\pi}{2}$ $B)\ 4\pi$ $C)\pi$ $D)\ 2\pi$	$A)\frac{\pi}{2}$ $B)\ 4\pi$ $C)\pi$ $D)\ 2\pi$

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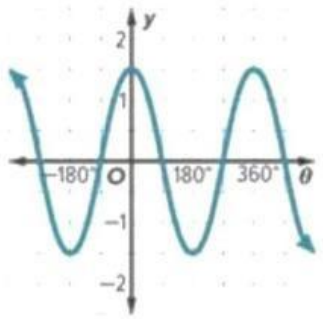
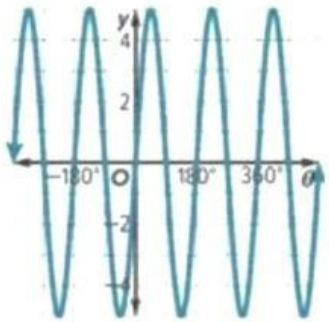
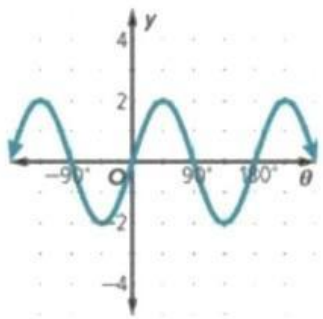
LIVEWORKSHEETS

Q28

For each graph, identify the period

		
$A)\ 90°$ $B)\ 360°$ $C)\ 180°$ $D)\ 270°$	$A)\ 90°$ $B)\ 360°$ $C)\ 180°$ $D)\ 270°$	$A)\ 90°$ $B)\ 360°$ $C)\ 180°$ $D)\ 270°$

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LIVEWORKSHEETS