

ملزمة هيكل الصف الثاني عشر العام - رياضيات



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ← المناهج الإماراتية ← الصف الثاني عشر العام ← رياضيات ← الفصل الثالث ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 2026-06-02 15:10:01

ملفات اكتب للمعلم اكتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل
منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس

المزيد من مادة
رياضيات:

إعداد: كرم أسعد

التواصل الاجتماعي بحسب الصف الثاني عشر العام



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

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

ملزمة هيكل 2026

1

إجابات وفق هيكل الرياضيات 2026

2

هيكل الامتحان النهائي 2026م غير محلول ملف 2

3

هيكل الامتحان النهائي 2026م معدل غير محلول

4

هيكل الامتحان النهائي 2026م غير محلول

5

ملزمة هيكل الصف الثاني عشر عام (ريفيل)

2026-2025

Mathematics

الترم الثالث

MR. Karam

WhatsApp:



إعداد

أ / كرم أسعد

لا تتردد في التواصل معنا والاستعداد للامتحان بكل ثقة

0505308082

Simplify $\frac{(6x^2 - 5xy)(x + 2y)}{(x + y)(5y - 6x)}$.

A $\frac{x(x + 2y)}{x + y}$

B $\frac{-x(x + 2y)}{x + y}$

C $\frac{x(x - 2y)}{x + y}$

D $\frac{x(x + 2y)}{x - y}$

Select the simplified form of $\frac{(7y - 3x)(5x - 1)}{(5x^3 + x^2)(3x - 7y)}$.

A. $-\frac{5x - 1}{x^2(5x + 1)}$

B. $\frac{(7y - 3x)(5x - 1)}{x^2(5x + 1)(3x - 7y)}$

C. $\frac{1}{x^2}$

D. $\frac{5x - 1}{5x^3 + x^2}$

Simplify $\frac{10d^5}{6cd} \div \frac{30c^3d}{4c}$.

A $\frac{2d^3}{9c^3}$

B $\frac{d^3}{9c^3}$

C $\frac{2d^4}{9c^3}$

D $\frac{2d^3}{9c^2}$

Simplify $\frac{3x}{8y} \cdot \frac{12x^2y}{9xy^3}$.

A $\frac{x^2}{2y^3}$

B $\frac{x^2}{2y^2}$

C $\frac{2x^2}{y^3}$

D $\frac{x^2}{3y^3}$

Simplify $\frac{\frac{3x}{x-y}}{\frac{6xy}{4x^2-4y^2}}$.

A $\frac{2(x+y)}{y}$

B $\frac{x+y}{y}$

C $\frac{2(x-y)}{y}$

D $\frac{x+y}{2y}$

Simplify $\frac{\frac{x^2-9y^2}{xy}}{\frac{2x+6y}{x^2}}$.

A $\frac{x(x-3y)}{2y}$

B $\frac{x(x+3y)}{2y}$

C $\frac{x(x-3y)}{y}$

D $\frac{(x-3y)}{2y}$

Simplify $\frac{2x+1}{x^2+2x-15} - \frac{7}{5x-15}$.

Simplify $\frac{3x}{4x^2+4} - \frac{2x^2}{x^4-1}$.

A $\frac{3x(x^2-1)-8x^2}{4(x^2+1)(x^2-1)}$

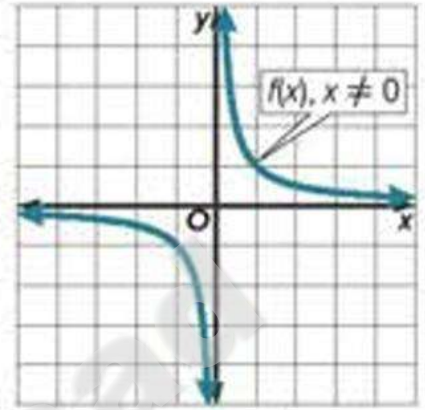
B $\frac{3x^3-3x-8x^2}{4(x^4-1)}$

C $\frac{3x-8x^2}{4(x^4-1)}$

D $\frac{3x^2-8x}{4(x^2+1)(x^2-1)}$

Key Concept • Reciprocal Functions

Parent function	$f(x) = \frac{1}{x}$
Type of graph	hyperbola
Domain and range	all nonzero real numbers
Asymptotes	$x = 0$ and $f(x) = 0$
Intercepts	none
Not defined	$x = 0$



Determine the excluded value of x for $g(x) = \frac{6}{x}$.

A $x = 6$

B $x = 0$

C $x = -6$

D $x = 1$

Determine the excluded value of x for $g(x) = \frac{-5}{3x+4}$.

A $x = \frac{4}{3}$

B $x = -\frac{4}{3}$

C $x = \frac{3}{4}$

D $x = \frac{5}{3}$

Determine the value of x for which $f(x) = \frac{2}{-2x+5}$ is undefined.

A $x = \frac{5}{2}$

B $x = -\frac{5}{2}$

C $x = 2$

D $x = 5$

Determine the value of x for which $f(x) = \frac{-12}{-3x-7}$ is undefined.

A $x = \frac{7}{3}$

B $x = -\frac{7}{3}$

C $x = 3$

D $x = 7$

Graph $g(x) = \frac{-4}{x+1} - 2$. State the domain and range.

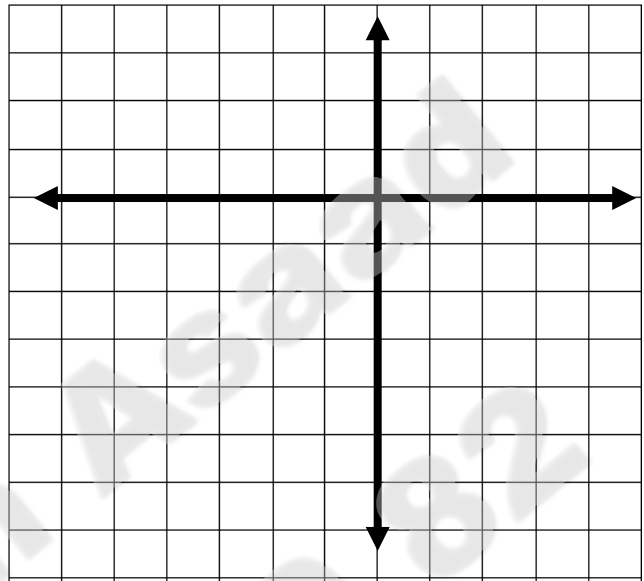
The graph is reflected
stretched vertically.

The vertical asymptote is

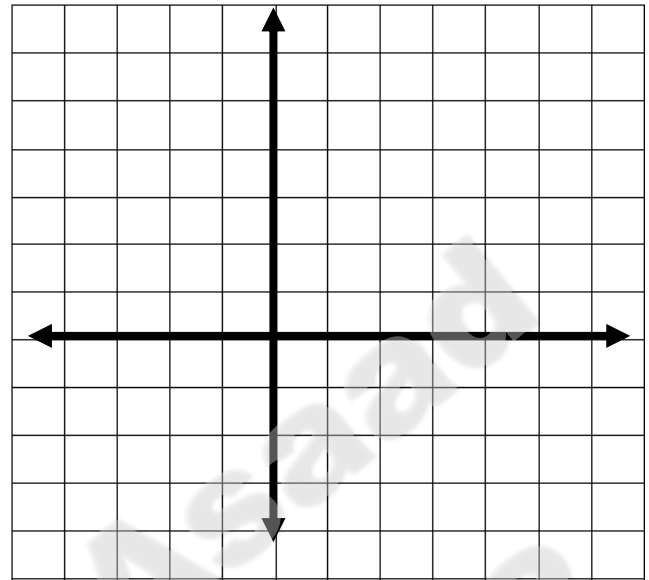
The horizontal asymptote is

The domain

The range is



Graph $g(x) = \frac{1}{x-1} + 3$.

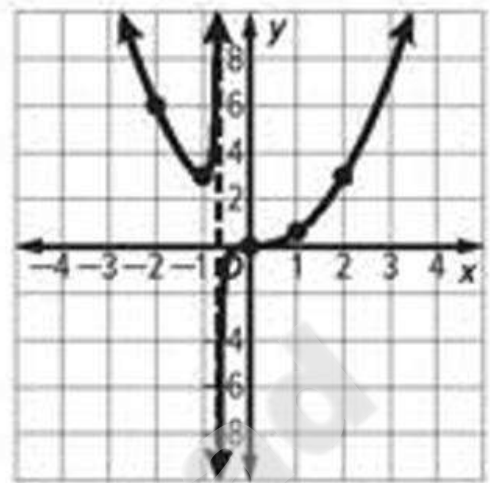


Key Concept • Vertical and Horizontal Asymptotes

If $f(x) = \frac{a(x)}{b(x)}$, $a(x)$ and $b(x)$ are polynomial functions with no common

- $f(x)$ has a vertical asymptote whenever $b(x) = 0$.
- If the degree of $a(x)$ is greater than the degree of $b(x)$, there is no horizontal asymptote.
- If the degree of $a(x)$ is less than the degree of $b(x)$, the horizontal asymptote is the line $y = 0$.
- If the degree of $a(x)$ equals the degree of $b(x)$, the horizontal asymptote is the line $y = \frac{\text{leading coefficient of } a(x)}{\text{leading coefficient of } b(x)}$.

Graph $f(x) = \frac{x^3}{x + \frac{2}{3}}$.



There is a zero at $x =$

There is a vertical asymptote at $x =$

Key Concept • Oblique Asymptotes

If $f(x) = \frac{a(x)}{b(x)}$, where $a(x)$ and $b(x)$ are polynomial functions with no common factors other than 1 and $b(x) \neq 0$, then $f(x)$ has an oblique asymptote if the degree of $a(x)$ minus the degree of $b(x)$ equals 1.

The equation of the asymptote is $f(x) = \frac{a(x)}{b(x)}$ with no remainder.

For $f(x) = \frac{x^2 + 2x + 1}{x + 4}$, find the zeros.

A $x = -1$

B $x = 1$

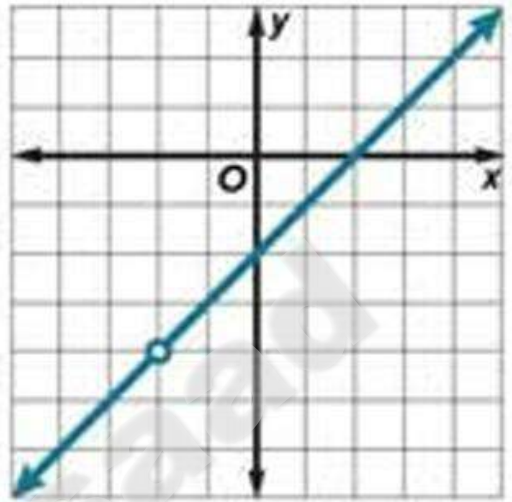
C $x = -4$

D $x = 4$

Find the asymptotes.

Mr. Karam Asaad
050 53 080 82
Math is the gym for your brain

Graph $f(x) = \frac{x^2 - 4}{x + 2}$. Find the point discontinuity.



- A (2, 4)
- B (-2, -4)
- C (2, 0)
- D (-2, 4)

Solve: $\frac{7}{12} + \frac{9}{x-4} = \frac{55}{48}$.

- A $x = 16$
- B $x = -16$
- C $x = 20$
- D $x = 8$

Solve $\frac{2m}{m-4} - \frac{m^2 + 7m + 4}{3m^2 - 18m + 24} = \frac{4m}{3m-6}$.

Mr. Karam Asaad
050 53 080 82
Math is the gym for your brain

Draw an angle in standard position that measures 200° . It lies in which quadrant?

- ☐ A Quadrant I
- ☐ B Quadrant II
- ☐ C Quadrant III
- ☐ D Quadrant IV

An angle of 475° in standard position is coterminal with which angle between 0° and 360° ?

- ☐ A 115°
- ☐ B 105°
- ☐ C 125°
- ☐ D 95°

An angle of -400° in standard position is coterminal with which positive angle?

A -40°

B 320°

C 310°

D 330°

Mr. Karam Asaad
050 53 080 82
Math is the gym for your brain

Find a positive and negative angle coterminal with 35° .

A 395° and -325°

B 385° and -335°

C 395° and -335°

D 375° and -325°

Rewrite -100° in radians.

A $-\frac{5\pi}{9}$

B $\frac{5\pi}{9}$

C $-\frac{\pi}{9}$

D $-\frac{5\pi}{18}$

Rewrite $\frac{11\pi}{4}$ in degrees.

A 495°

B 445°

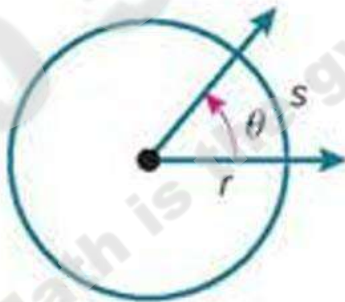
C 540°

D 480°

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: $s = r\theta$



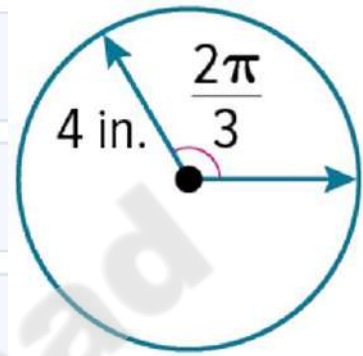
Find the arc length for $r = 4$ in, $\theta = \frac{2\pi}{3}$. Round to the nearest tenth.

A 8.4 in

B 7.5 in

C 9.0 in

D 6.3 in



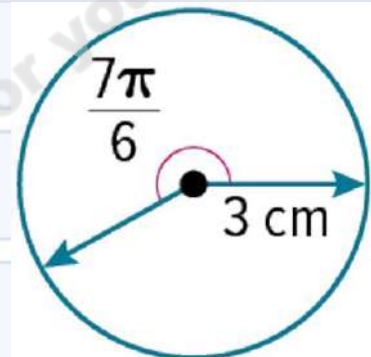
Find the arc length for $r = 3$ cm, $\theta = \frac{7\pi}{6}$. Round to the nearest tenth.

A 10.9 cm

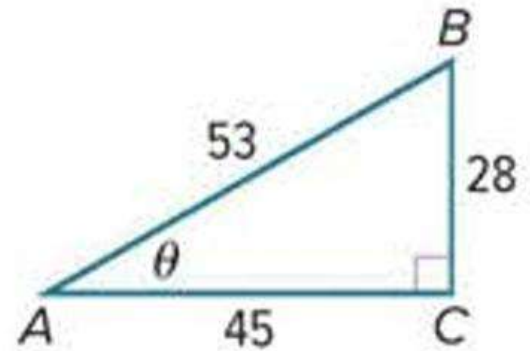
B 11.0 cm

C 10.5 cm

D 9.8 cm



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



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

$$\sin \theta = \frac{?}{?}$$

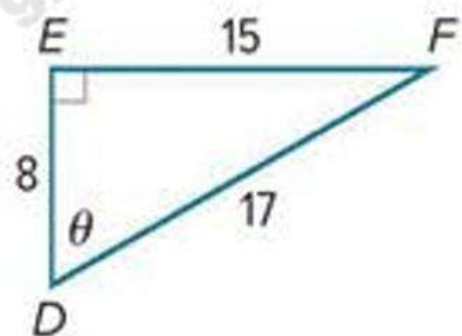
$$\cos \theta = \frac{?}{?}$$

$$\tan \theta = \frac{?}{?}$$

$$\csc \theta = \frac{?}{?}$$

$$\sec \theta = \frac{?}{?}$$

$$\cot \theta = \frac{?}{?}$$



If $\cos A = \frac{9}{13}$, find the exact values of the five remaining trigonometric functions for A .

If $\sec B = \frac{11}{3}$, find the exact values of the five remaining trigonometric functions for B .



احصل علي الشرح الكامل بمسح
الكود والتواصل مع أ / كرم أسعد

0505308082

Find the reference angle for 155° .

A 25°

B 35°

C 45°

D 55°

Find the reference angle for $-\frac{8\pi}{3}$.

A $\frac{\pi}{3}$

B $\frac{2\pi}{3}$

C $\frac{\pi}{6}$

D $\frac{\pi}{4}$

Find the exact value of $\tan \frac{7\pi}{4}$.

A -1

B 1

C $\sqrt{2}$

D $\frac{\sqrt{2}}{2}$

Find the exact value of $\sec 225^\circ$.

A $-\sqrt{2}$

B $\sqrt{2}$

C $\frac{\sqrt{2}}{2}$

D $-\frac{\sqrt{2}}{2}$

The terminal side of θ in standard position intersects the unit circle at $P\left(-\frac{12}{13}, \frac{5}{13}\right)$.

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

The terminal side of θ intersects the unit circle at $P\left(-\frac{4}{5}, -\frac{3}{5}\right)$. Find $\cos \theta$ as a decimal.

☐ A -0.8

☐ B 0.8

☐ C -0.6

☐ D 0.6

The terminal side of θ intersects the unit circle at $P(-\frac{4}{5}, -\frac{3}{5})$. Find $\sin \theta$ as a decimal.

A -0.6

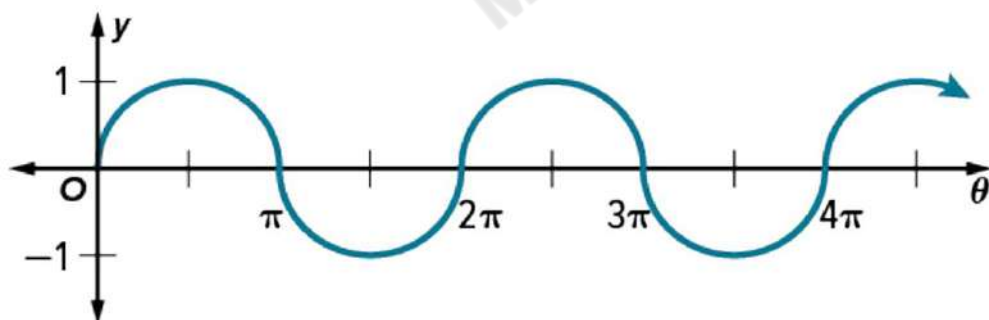
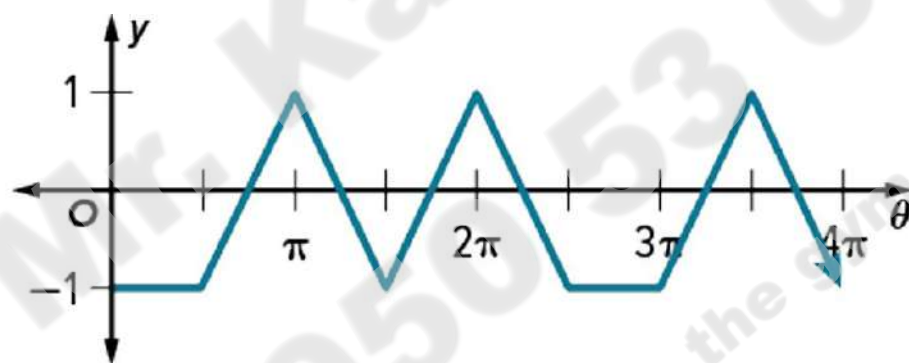
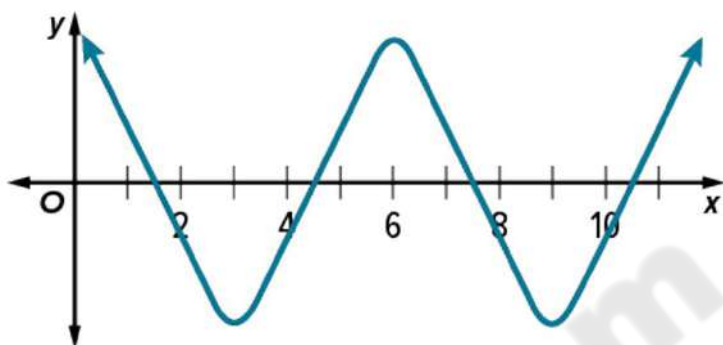
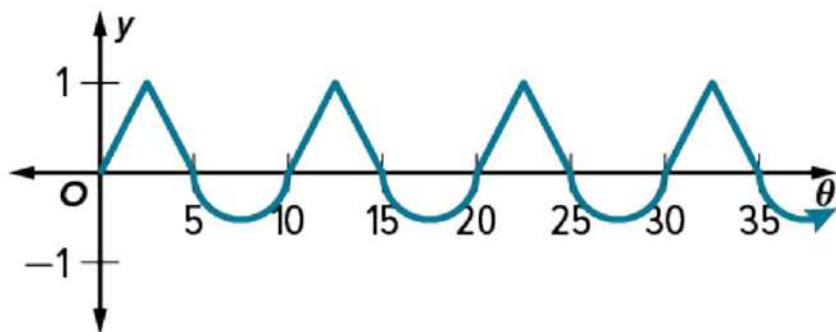
B 0.6

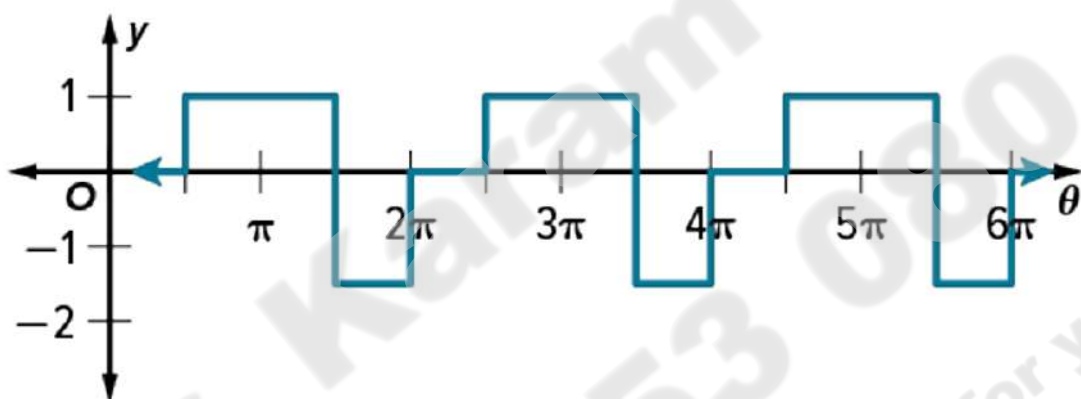
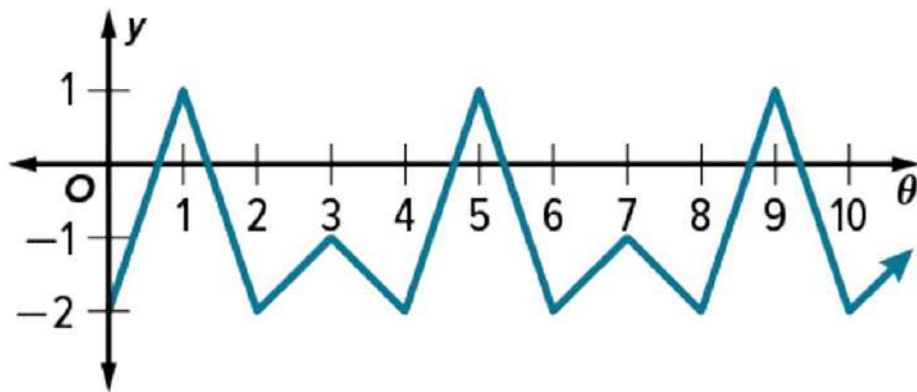
C -0.8

D 0.8

Mr. Karam Asaad
050 53 080 82
Math is the gym for your brain

Determine the period of the function.





Find the exact value of $\cos \frac{10\pi}{3}$.

$$\sin \frac{8\pi}{3} = \underline{\quad ? \quad}$$

$$\cos \frac{5\pi}{6} = \underline{\quad ? \quad}$$

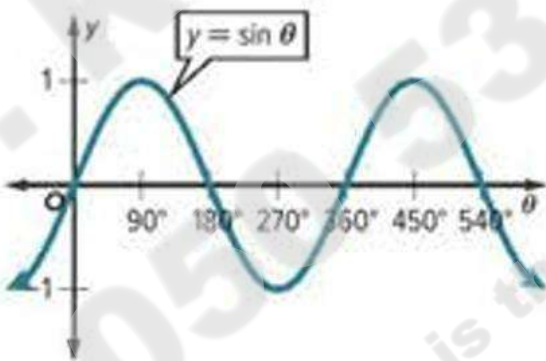
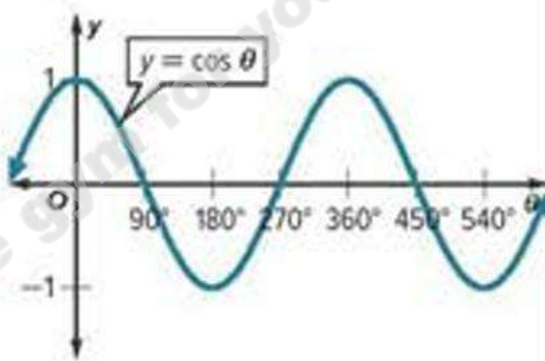
$$\sin \frac{21\pi}{4} = \underline{\quad ? \quad}$$

$$\cos \frac{11\pi}{3} = \underline{\quad ? \quad}$$

$$\cos 60^\circ = \underline{\quad ? \quad}$$

$$\sin 600^\circ = \underline{\quad ? \quad}$$

Key Concept • Sine and Cosine Functions

Parent	$y = \sin x$	$y = \cos x$
Graph		
Domain	all real numbers	all real numbers
Range	$\{y \mid -1 \leq y \leq 1\}$	$\{y \mid -1 \leq y \leq 1\}$
Amplitude 1		1
Midline	$y = 0$	$y = 0$
Period	360°	360°
Oscillation between -1 and 1		between -1 and 1

Find the amplitude and period of each function.

$$y = 2 \cos \theta$$

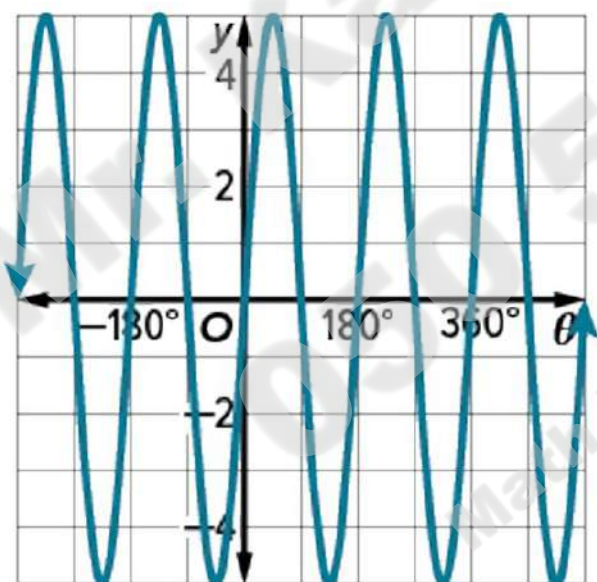
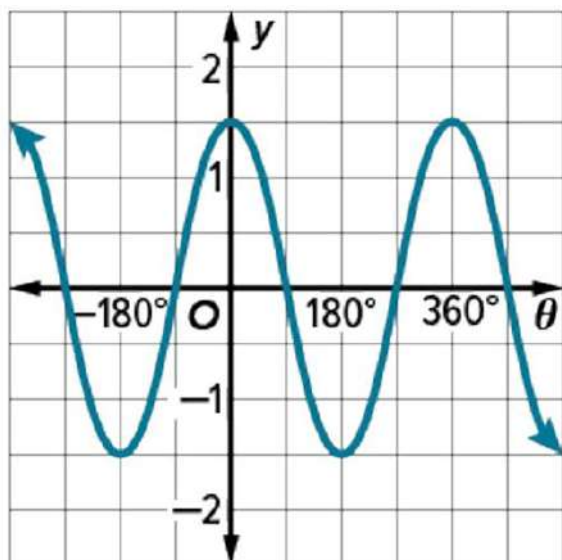
$$y = 2 \sin \theta$$

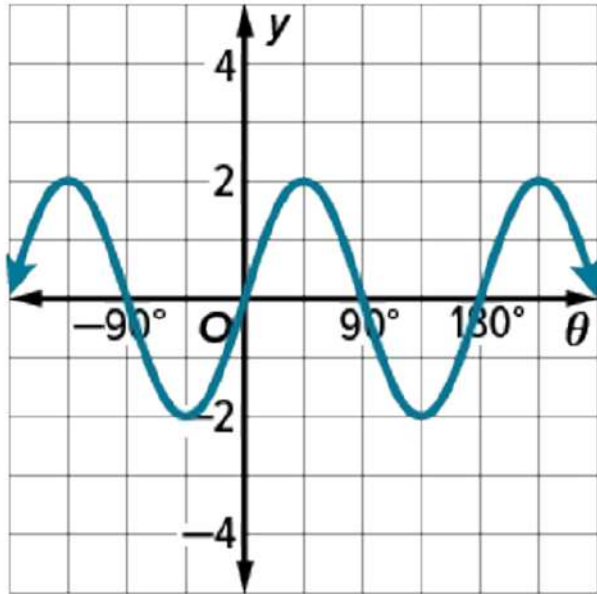
$$y = \cos \frac{1}{2} \theta$$

$$y = \frac{3}{4} \cos \theta$$

$$y = \frac{1}{2} \sin 2\theta$$

For each graph, identify the period and write an equation.





Mr. Karam Asaad
050 53 080 82
Math is the gym for your brain

Find the period, asymptotes, x-intercepts, midline, and transformations of $y = \tan 3x$. Then graph the function.

Mr. Karam Asaad
050 53 080 82
Math is the gym for your brain

Consider $y = \tan 0.25x$.

Part A Identify the period, asymptotes, x-intercepts, and transformations of $y = \tan 0.25x$ for $-2\pi \leq x \leq 6\pi$.

period: ?

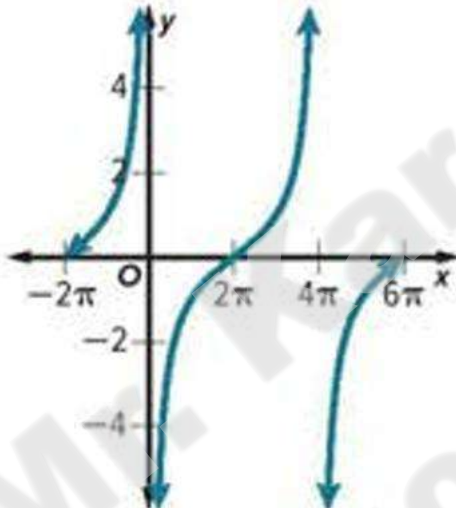
asymptotes: ?

x-intercepts: ?

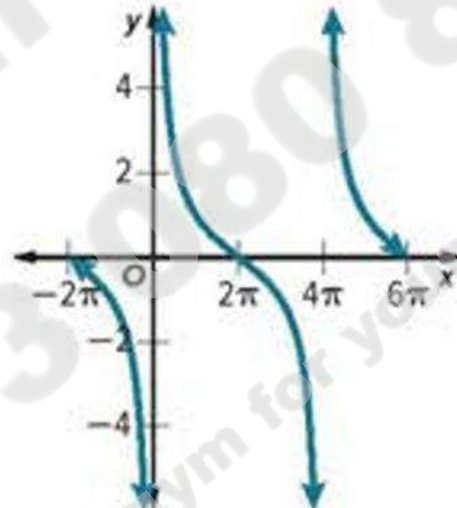
The function is ? in relation to the parent function.

Part B Select the graph of $y = \tan 0.25x$.

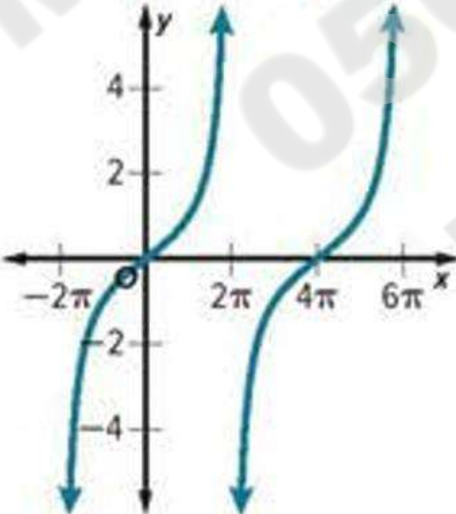
A.



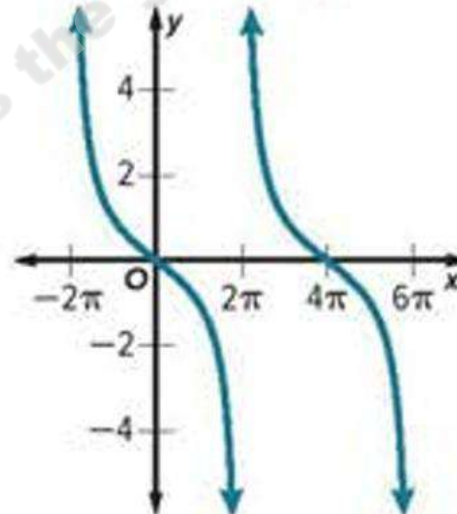
B.



C.



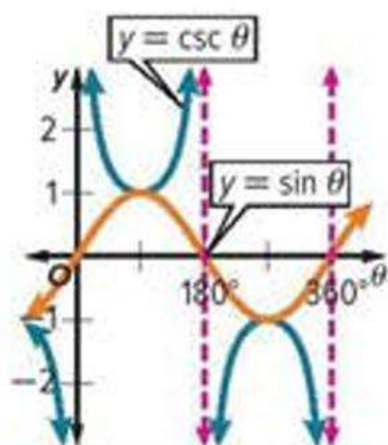
D.



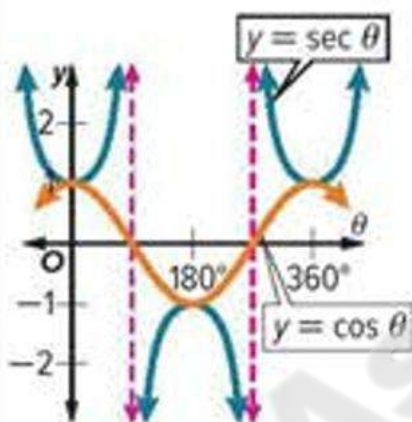
Key Concept • Graphs of Reciprocal Functions

Parent Function

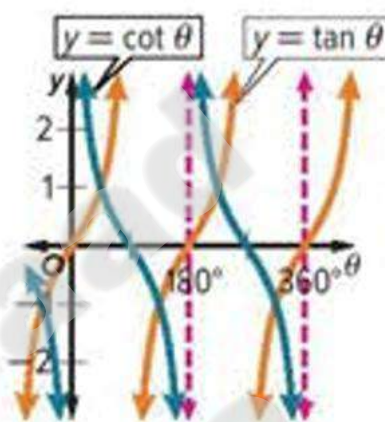
$$y = \csc x$$



$$y = \sec x$$



$$y = \cot x$$



Domain

$$\{x \mid x \neq 180n^\circ, n \text{ is an integer}\}$$

$$\{x \mid x \neq (90 + 180n)^\circ, n \text{ is an integer}\}$$

$$\{x \mid x \neq 180n^\circ, n \text{ is an integer}\}$$

Range

$$\{y \mid y \leq -1 \text{ or } y \geq 1\}$$

$$\{y \mid y \leq -1 \text{ or } y \geq 1\}$$

all real numbers

Amplitude

undefined

undefined

undefined

Period

360°

360°

180°

Midline

$$y = 0$$

$$y = 0$$

$$y = 0$$

Find the period and asymptotes of each function, the relative extrema of each secant and cosecant function, and the x -intercepts of each cotangent function. Then graph each function.

$$y = \csc \frac{3}{4}x$$

Mr. Karam Asaad
050 53 080 82
Math is the gym for your brain