

تم تحميل هذا الملف من موقع المناهج الإماراتية



التوقعات المرئية ليلة الاختبار وفق الهيكل الوزاري

موقع المناهج ← المناهج الإماراتية ← الصف الثاني عشر العام ← رياضيات ← الفصل الأول ← اختبارات ← الملف

تاريخ إضافة الملف على موقع المناهج: 20:28:21 2024-12-01

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

المزيد من مادة
رياضيات:

إعداد: أحمد عطا

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 الأول

حل أسئلة الامتحان النهائي القسم الالكتروني للعام 2020-2021

1

حل أسئلة الامتحان النهائي القسم الالكتروني للعام 2022-2023

2

حل تجميعية أسئلة وفق الهيكل الوزاري منهج بريدج المسار العام

3

أوراق عمل الأسئلة (14-15) وفق الهيكل الوزاري القسم الالكتروني

4

أوراق عمل الأسئلة (10-13) وفق الهيكل الوزاري القسم الالكتروني

5

12 GEN

الثاني عشر عام

الساعة 1 ظهرا



Mr. Ahmed Ata
The Featured Program

التوقعات المرئية

الدعوة عامة لجميع الطلاب لحضور الحصة على التيمز يوم **الأحد**

القادم **2024-12-1** من خلال الرابط التالي

<https://cutt.us/TEAMS12GEN>

بمناسبة اليوم الوطني لدولة الامارات

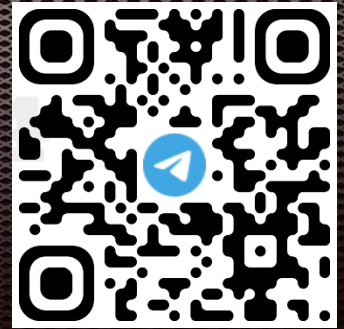
MATH 2024-2025
MR – AHMED ATA



0566010255 - 0502070147



<https://t.me/ahmedatamath>



اشترك في القناة

1

State the domain of each function.

$$\frac{x + 1}{x^2 - 3x - 40}$$

a) $R/\{5, 8\}$

b) $R/\{-5, -8\}$

c) $R/\{-5, 8\}$

d) $R/\{-4, 3\}$



2

State the domain of each function.

$$g(x) = \sqrt{1 + a^2}$$

a) $(0, \infty)$

b) $(-\infty, 0)$

c) $(-\infty, \infty)$

d) $(-1, 1)$

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3

State the domain of each function.

$$f(x) = \frac{2}{x} + \frac{4}{x+1}$$

a) $(-\infty, \infty)$

c) $\{x|x \neq 0, x \neq 1\}$

b) $\{x|x = 0, x = 1\}$

d) $\{x|x \neq 0, x \neq -1\}$



4

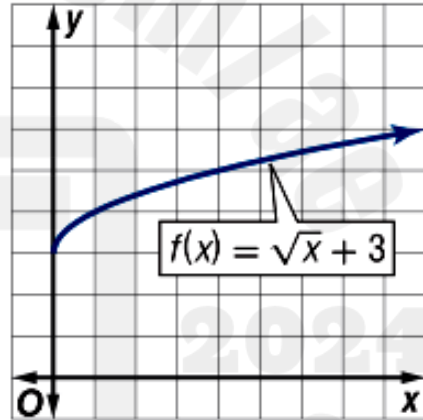
Use the graph of each function to find its y-intercept and zero(s)

a) $y = 0, x = 3$

b) $y = 3, x = \text{no zeros}$

c) $y = 0, x = 0$

d) $y = 3, x = 0$



5

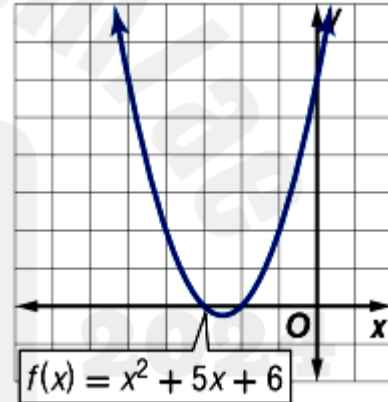
Use the graph of each function to find its y-intercept and zero(s)

a) $y = 6, x = 2$ and 3

b) $y = -6, x = -2$ and -3

c) $y = -6, x = 2$ and -3

d) $y = 6, x = -2$ and -3



6

Use the graph of each function to describe its end behavior

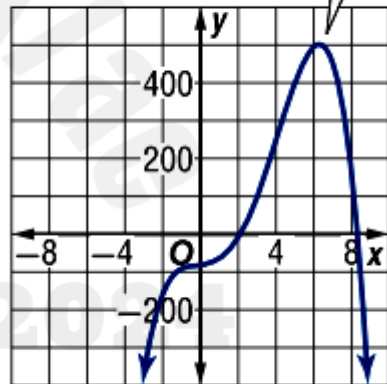
$$a) \lim_{x \rightarrow -\infty} f(x) = -\infty, \lim_{x \rightarrow \infty} f(x) = \infty$$

$$b) \lim_{x \rightarrow -\infty} f(x) = \infty, \lim_{x \rightarrow \infty} f(x) = -\infty$$

$$c) \lim_{x \rightarrow -\infty} f(x) = -\infty, \lim_{x \rightarrow \infty} f(x) = -\infty$$

$$d) \lim_{x \rightarrow -\infty} f(x) = \infty, \lim_{x \rightarrow \infty} f(x) = \infty$$

$$f(x) = -x^4 + 8x^3 + 3x^2 + 6x - 80$$



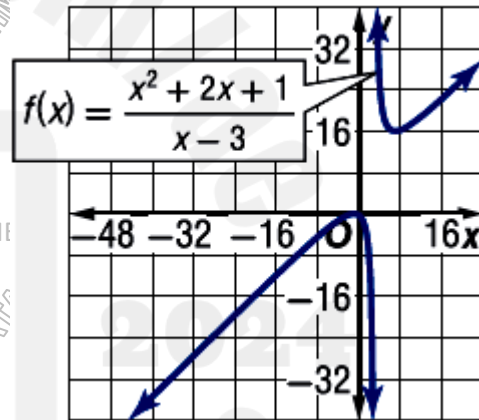
Use the graph of each function to describe its end behavior

a) $\lim_{x \rightarrow -\infty} f(x) = -\infty$, $\lim_{x \rightarrow \infty} f(x) = \infty$

b) $\lim_{x \rightarrow -\infty} f(x) = \infty$, $\lim_{x \rightarrow \infty} f(x) = -\infty$

c) $\lim_{x \rightarrow -\infty} f(x) = -\infty$, $\lim_{x \rightarrow \infty} f(x) = -\infty$

d) $\lim_{x \rightarrow -\infty} f(x) = \infty$, $\lim_{x \rightarrow \infty} f(x) = \infty$



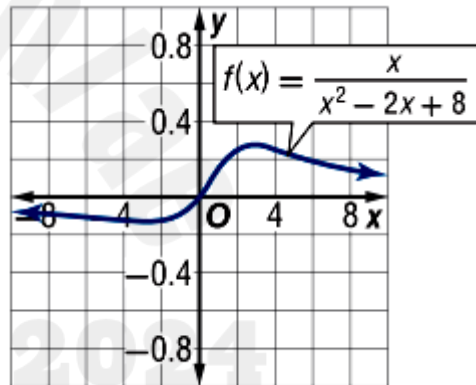
Use the graph of each function to describe its end behavior

a) $\lim_{x \rightarrow -\infty} f(x) = -\infty$, $\lim_{x \rightarrow \infty} f(x) = \infty$

b) $\lim_{x \rightarrow -\infty} f(x) = 0$, $\lim_{x \rightarrow \infty} f(x) = 0$

c) $\lim_{x \rightarrow -\infty} f(x) = -\infty$, $\lim_{x \rightarrow \infty} f(x) = -\infty$

d) $\lim_{x \rightarrow -\infty} f(x) = \infty$, $\lim_{x \rightarrow \infty} f(x) = \infty$



9

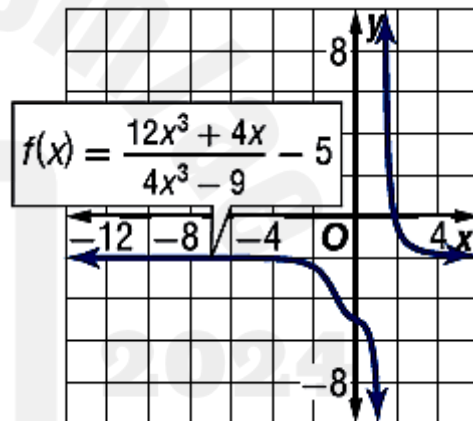
Use the graph of each function to describe its end behavior

$$a) \lim_{x \rightarrow -\infty} f(x) = -2, \lim_{x \rightarrow \infty} f(x) = \infty$$

$$b) \lim_{x \rightarrow -\infty} f(x) = 0, \lim_{x \rightarrow \infty} f(x) = 0$$

$$c) \lim_{x \rightarrow -\infty} f(x) = 3, \lim_{x \rightarrow \infty} f(x) = 3$$

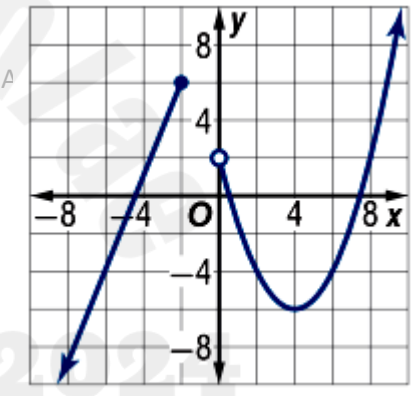
$$d) \lim_{x \rightarrow -\infty} f(x) = -2, \lim_{x \rightarrow \infty} f(x) = -2$$



10

Use the graph of each function to estimate intervals to the nearest 0.5 unit on which the function is increasing, decreasing, or constant.

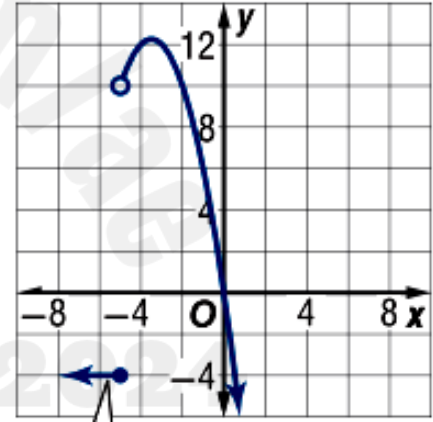
- a) *inc on* $(-\infty, 0)$ *and* $(0, \infty)$
- b) *inc on* $(-\infty, -2)$ *and* $(4, \infty)$ *dec on* $(0, 4)$
- c) *inc on* $(-\infty, \infty)$
- d) *constant on* $(-\infty, -5)$ *inc on* $(-5, -3.5)$ *dec on* $(-3.5, \infty)$



11

Use the graph of each function to estimate intervals to the nearest 0.5 unit on which the function is increasing, decreasing, or constant.

- a) *inc on* $(-\infty, 0)$ *and* $(0, \infty)$
- b) *inc on* $(-\infty, -2)$ *and* $(4, \infty)$ *dec on* $(0, 4)$
- c) *inc on* $(-\infty, \infty)$
- d) *constant on* $(-\infty, -5)$ *inc on* $(-5, -3.5)$ *dec on* $(-3.5, \infty)$



12

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Solve each equation.

$$2x = \sqrt{100 - 12x} - 2$$

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a) $x = -8, x = 3$

b) $x = 3$

c) $x = 8, x = 3$

d) $x = -8, x = -3$

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13

Solve each equation.

$$\sqrt[3]{4x + 8} + 3 = 7$$

- a) $x = \{8, 14\}$
- b) $x = \{14\}$
- c) $x = \{1, 5\}$
- d) *no solution*

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Describe the end behavior of the graph of each polynomial function using limits.

$$f(x) = 3x^4 - 5x^2 - 1$$

a) $\lim_{x \rightarrow -\infty} f(x) = -\infty$, $\lim_{x \rightarrow \infty} f(x) = \infty$

b) $\lim_{x \rightarrow -\infty} f(x) = \infty$, $\lim_{x \rightarrow \infty} f(x) = -\infty$

c) $\lim_{x \rightarrow -\infty} f(x) = -\infty$, $\lim_{x \rightarrow \infty} f(x) = -\infty$

d) $\lim_{x \rightarrow -\infty} f(x) = \infty$, $\lim_{x \rightarrow \infty} f(x) = \infty$



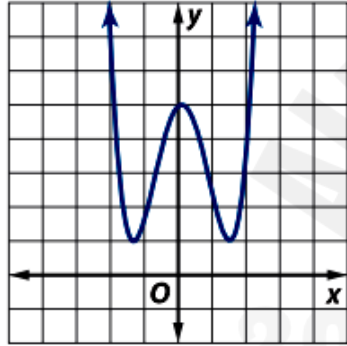
15

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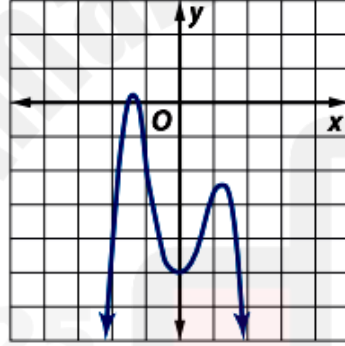
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Determine the polynomial for each graph is odd and its leading a_n is *positive*



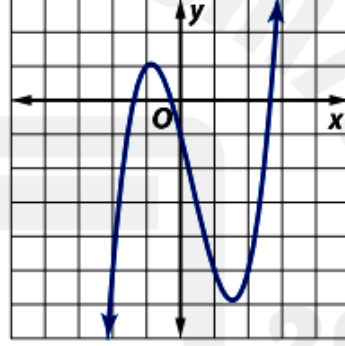
a)

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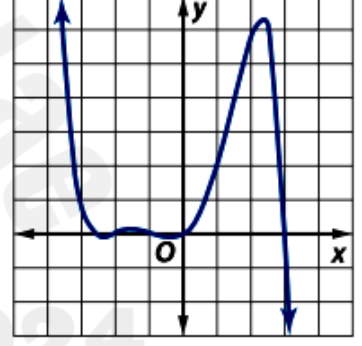
b)

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c)

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d)

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Divide using long division.

$$(2x^4 - 7x^3 - 38x^2 + 103x + 60) \div (x - 3)$$

a) $2x^3 - 8x^2 + 22x - 20$

b) $2x^3 - x^2 - 41x - 20$

c) $4x^3 - x^2 + 41x - 20$

d) $2x^3 - x^2 + 41x + 20$

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Divide using long division.

$$(4x^4 - 8x^3 + 12x^2 - 6x + 12) \div (2x + 4)$$

a) $2x^3 - 8x^2 + 22x - 47 + \frac{100}{x + 2}$

b) $2x^3 - 8x^2 + 22x - 47 - \frac{100}{x + 2}$

c) $2x^3 - 8x^2 + 22x - 47 + \frac{100}{2x+2}$

d) $2x^3 - 8x^2 + 22x - 47 + \frac{100}{2x + 4}$



Solve each inequality

$$\frac{4}{x-6} + \frac{2}{x+1} > 0$$

a) $\left(-1, \frac{4}{3}\right) \cup (6, \infty)$

b) $(-\infty, -1] \cup [2, 5)$

c) $(-\infty, -5) \cup (0, \infty)$

d) $\left[\frac{3}{4}, 3\right]$



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Solve each inequality

$$\frac{x + 6}{4x - 3} \geq 1$$

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a) $\left(-1, \frac{4}{3}\right) \cup (6, \infty)$

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b) $(-\infty, -1] \cup [2, 5)$

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c) $(-\infty, -5) \cup (0, \infty)$

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d) $\left[\frac{3}{4}, 3\right]$



20

Use the graph of $f(x) = \log x$ to describe the transformation that results in each function.

$$m(x) = -\log x - 5$$

- reflected in the x – axis and then translated 5 units down*
- reflected in the y – axis and then translated 5 units down*
- reflected in the x – axis and then translated 5 units up*
- reflected in the x – axis and then translated 5 units left*



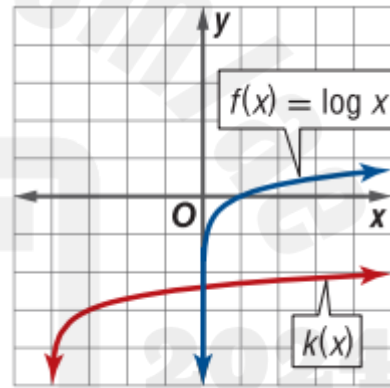
Use the parent graph of $f(x) = \log x$ to find the equation of each function.

a) $g(x) = \log x + 3$

b) $g(x) = \log x - 3$

c) $g(x) = \log(x + 4) - 3$

d) $g(x) = \log(x - 4) - 3$



22

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 Condense each expression.

$$6\ln(x - 4) + 3\ln x$$

a) $\ln x^3(x - 4)^2$

b) $\ln x^3(x + 4)^6$

c) $\ln x^3(x - 4)^6$

d) $\ln x^3(x - 4)^3$

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23

Condense each expression.

$$3 \log_5 x - \frac{1}{2} \log_5 (6 - x)$$

a) $\log_5 \frac{x^3}{x\sqrt{6-x}}$

b) $\log_5 \frac{x^3}{\sqrt{6-x}}$

c) $\log_5 \frac{x^2}{x\sqrt{6-x}}$

d) $\log_5 \frac{x^3}{\sqrt{6+x}}$



24

Identify all angles that are coterminal with the given angle
 120°

a) $120^\circ + 360^\circ n$, $n \in \mathbb{Z}$

b) $120^\circ + 180^\circ n$, $n \in \mathbb{Z}$

c) $240^\circ + 360^\circ n$, $n \in \mathbb{Z}$

d) $90^\circ + 360^\circ n$, $n \in \mathbb{Z}$

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25

Find one positive and one negative angle coterminal with the given angle.

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

a) $\frac{7\pi}{2}, -\frac{3\pi}{2}$

b) $-\frac{7\pi}{2}, \frac{\pi}{2}$

c) $\frac{7\pi}{2}, -\frac{\pi}{2}$

d) $\frac{7\pi}{2}, -\frac{\pi}{3}$

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The given point lies on the terminal side of an angle θ in standard position. Find the values of $\cos\theta$, $\sin\theta$.

$(-4, -3)$

a) $\cos\theta = \frac{3}{5}$, $\sin\theta = \frac{4}{5}$

b) $\cos\theta = -\frac{3}{5}$, $\sin\theta = -\frac{4}{5}$

c) $\cos\theta = -\frac{4}{5}$, $\sin\theta = -\frac{3}{5}$

d) $\cos\theta = -\frac{5}{4}$, $\sin\theta = -\frac{5}{3}$



27

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Find its reference angle.

$$\theta = \frac{7\pi}{12}$$

a) $\theta' = \frac{5\pi}{12}$

b) $\theta' = \frac{\pi}{6}$

c) $\theta' = \frac{\pi}{3}$

d) $\theta' = \frac{\pi}{4}$



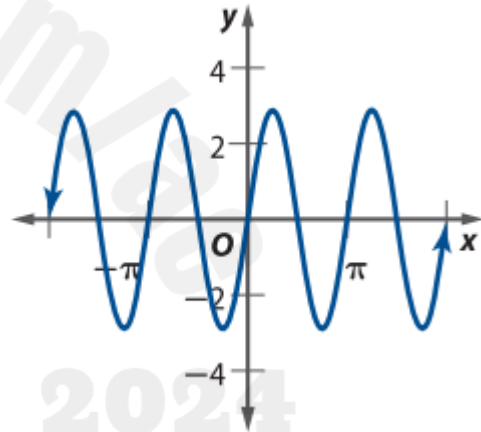
Write an equation that corresponds to each graph.

a) $y = 3\sin 2x$

b) $y = 4\sin \frac{x}{2} - 2$

c) $y = 2\cos 4x + 1$

d) $y = \frac{1}{2}\cos \frac{x}{3}$



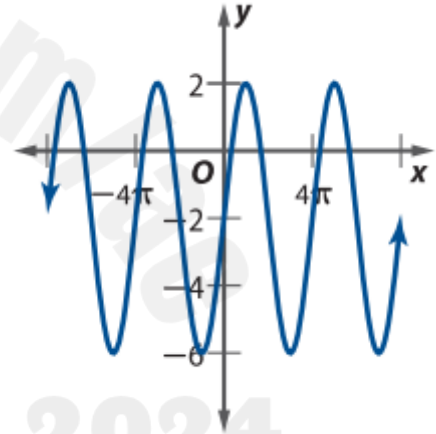
Write an equation that corresponds to each graph.

a) $y = 4\sin 2x - 2$

b) $y = 4\sin \frac{x}{2} - 2$

c) $y = 4\cos 4x - 2$

d) $y = 2\sin \frac{x}{2} - 2$



30

Find the exact value of each expression, if it exists.

$$\sin \left[\sin^{-1} \left(-\frac{1}{4} \right) \right]$$

a) $-\frac{1}{4}$

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

c) *undefined*

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



31

Rewrite as an expression that does not involve a fraction.

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

a) $1 - \sin\theta$

b) $1 + \cos x$

c) $1 + \sin\theta$

d) $1 - \tan x$



32

Rewrite as an expression that does not involve a fraction.

$$\frac{\sin x \tan x}{\cos x + 1}$$

a) $\sec x - \cos x$

b) $\sec x + 1$

c) $\sec x - 1$

d) $\csc x - 1$



33

Given $f(x) = x^2 + 4x$, $g(x) = \sqrt{x + 2}$, and $h(x) = 3x - 5$, find each function and its domain.

a. $(f + g)(x)$

b. $(f - h)(x)$

c. $(f \cdot h)(x)$

d. $\left(\frac{h}{f}\right)(x)$

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Find for each $f(x)$ and $g(x)$ State the domain of each new function.

$$f(x) = \frac{1}{\sqrt{x}}$$

$$g(x) = 4\sqrt{x}$$

$$(f + g)(x)$$

$$(f - g)(x)$$

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Find for each $f(x)$ and $g(x)$ State the domain of each new function.

$$f(x) = \frac{1}{\sqrt{x}}$$

$$g(x) = 4\sqrt{x}$$

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$$(f \cdot g)(x)$$

$$\left(\frac{f}{g}\right)(x)$$

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36

Find two functions f and g such that $h(x) = [f \circ g](x)$. Neither function may be the identity function $f(x) = x$.

$$h(x) = (\sqrt{x} + 4)^3$$

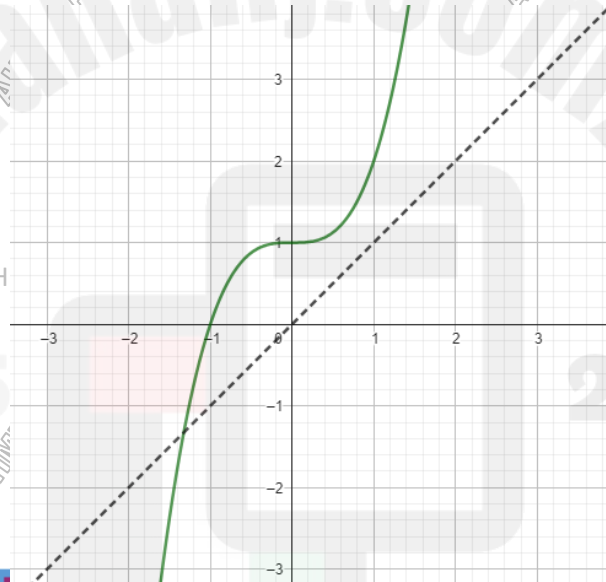
$$h(x) = \sqrt{4x + 2} + 7$$

$$h(x) = \sqrt{\frac{5-x}{x+2}}$$

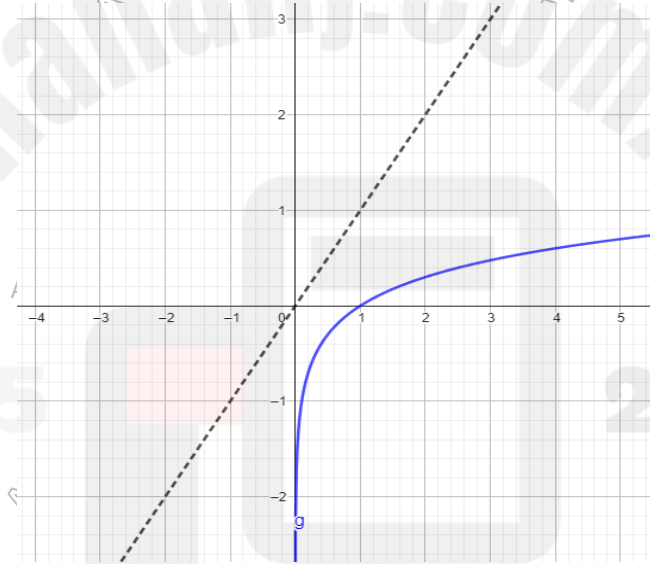
$$h(x) = \frac{8}{(x-5)^2}$$



Use the graph of each function to graph its inverse function.



Use the graph of each function to graph its inverse function.



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39

Write a polynomial function of least degree with real coefficients in standard form with the given zeros.

$$-2, 4, 3 - i$$

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40

Write a polynomial function of least degree with real coefficients in standard form with the given zeros.

$$\sqrt{7}, -\sqrt{7}, 4i$$

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41

Ahmed acquired an inheritance of AED 20,000 at age 8, but he will not have access to it until he turns 18.

If his inheritance is placed in a savings account earning 4.6% interest compounded monthly, how much will Ahmed's inheritance be worth on his 18th birthday?

How much will Ahmed's inheritance be worth if it is placed in an account earning 4.2% interest compounded continuously?



42

Solve each equation.

$$32^{x-1} = 4^{x+5}$$

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43

Solve each equation.

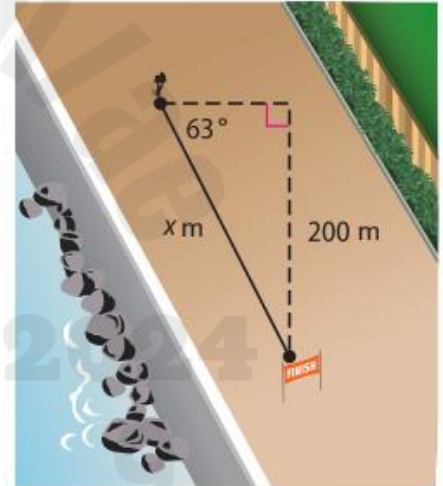
$$\left(\frac{9}{16}\right)^{3x-2} = \left(\frac{3}{4}\right)^{5x+4}$$

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44

A competitor in a triathlon is running along the course shown. Determine the length in feet that the runner must cover to reach the finish line.



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45

A paratrooper encounters stronger winds than anticipated while parachuting from 411.5 m, causing him to drift at an 8° angle. How far from the drop zone will the paratrooper land?



46

Verify each identity.

$$(\sec^2 \theta - 1) \cos^2 \theta = \sin^2 \theta$$

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47

Verify each identity.

$$\tan \theta \csc^2 \theta - \tan \theta = \cot \theta$$

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MR / Ahmed Ata



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48

Verify each identity.

$$\frac{\sec \theta}{\sin \theta} - \frac{\sin \theta}{\cos \theta} = \cot \theta$$

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