

П

Ш

Module 1

(*) 35:00

Section 2, Module 1: Math

Section 2, Module 1: Math

x(x+2) and $x^2 + 4x + 4$?

Mark for Review

Mark for Review 🗍

f(x) is defined by f(x)=2x-12. What is the value of x when f(x) = 2?

(A) -12

(B) −8





(C) 2



(D) 7

(A) x





Which of the following is a common factor of







(A)

TEST QUBE

Question 1 of 22 >

TEST醫QUBE

Section 2, Module 1: Math

Question 3 of 22 >

IV

VI

VII

Section 2, Module 1: Math



Mark for Review 🗍

Stephanie is planning to hold a party. She intends to spend no more than $140\,\mathrm{dollars}$ on decorating the party room and preparing the food. The room decoration costs 38 dollars regardless of the number of guests, and food preparation costs 9 dollars per guest. Which of the following expressions is most appropriate to find the maximum number of guests, g?

(B) $38 + 9g \ge 140$



 $9 + 39g \le 140$





(D)

Question 2 of 22 >

TEST键QUBE



Note: Figure Not Drawn to Scale

Line a intersects with parallel lines l and m in the diagram shown above. What is the value of x?



2

 $38 - 9g \le 140$





 $38 + 9g \le 140$



Mark for Review [



Module

5 M	ark for Review 🗍	7 Mar	k for Reviev	
What is the sum of two distinct real solutions for $x^2-6x-16$?		Light travels at a constant speed of $300,000$ kilometers per second in a vacuum. However, ti speed of light is halved in water. How long, in kilometers, would light travel in 10 seconds underwater?		
		(A) 3,000,000km		
		B 1,500,000km		
		© 750,000km		
		(D) 300,000km		
TEST QUBE Question 5 of 22> Section 2, Module 1: Math	Annotate	TEST@QUBE Question 7 of 22 > Section 2, Module 1: Math		
Section 2, Module 1: Math	Annotate :	Section 2, Module 1: Math	Anr Anr	
Section 2, Module 1: Math	Annotate \Box ark for Review \Box whose area is $24\sqrt{3}$	Section 2, Module 1: Math	rk for Revie	
Section 2, Module 1: Math 6 M Each side of a right hexagon H w is 4 units long. What is the area o	Annotate \Box ark for Review \Box whose area is $24\sqrt{3}$	Section 2, Module 1: Math $y=-4x+4$ $x-1=16$ (x,y) is a solution for the given sys	rk for Revie	
Section 2, Module 1: Math 6 M Each side of a right hexagon H w is 4 units long. What is the area of that has a side length of 2 ?	Annotate \Box ark for Review \Box whose area is $24\sqrt{3}$ f a right hexagon J	Section 2, Module 1: Math $y=-4x+4$ $x-1=16$ (x,y) is a solution for the given symptom equations. What is the value of y ?	rk for Revie	
Section 2, Module 1: Math 6 M Each side of a right hexagon H w is 4 units long. What is the area of that has a side length of 2? (A) $3\sqrt{3}$	Annotate \Box ark for Review \Box whose area is $24\sqrt{3}$ faright hexagon J	Section 2, Module 1: Math $y=-4x+4$ $x-1=16$ (x,y) is a solution for the given sylequations. What is the value of y ?	rk for Revie	



2

TEST衡QUBE

Question 10 of 22 >

Module 1

2

Section 2, Module 1: Math	Annotate	Section 2, Module 1:	Math Annotate	
Mark for	r Review 🗌	11	Mark for Review	w []
7, 15, 3		Which of the following $2ab$?	g expressions is equivaler	nt to
t S consists of five values as shape the mean value of data set S ?	hown above. ?	$igg(egin{array}{c} rac{a^2b^2}{2ab} \end{array} igg)$		(A)
				(1)
		(C) 2 <u>a</u>		0
				(b)
	Annotale	TEST續QUBE Quantity TEST衛QUBE Quantity TEST衛QUBE Quantity TEST	siion 11 of 22≫	ale i
可 2, Module 1: Math Mark for (Annotale			
2, Module 1: Math $ ext{Mark for } i$	Review \(\Bar{\cap} \)	Section 2, Module 1: M	lath Annot	
2, Module 1: Math $ ext{Mark for 6}$ hs of $y=\sqrt{x}-2$ and $x=4$ in ne point $P(x,y)$. What is the va	Review \square intersect at alue of y ?	Section 2, Module 1: M	fath Annot Mark for Review	
2, Module 1: Math $ ext{Mark for 6}$ hs of $y=\sqrt{x}-2$ and $x=4$ in ne point $P(x,y)$. What is the va	Review \(\Bar{\cap} \)	Section 2, Module 1: M	Mark for Review Calories per gram	
2, Module 1: Math $ ext{Mark for 6}$ hs of $y=\sqrt{x}-2$ and $x=4$ in ne point $P(x,y)$. What is the va	Review \(\) intersect at value of \(y \cdot ? \)	Section 2, Module 1: M 12 Nutrient Carbohydrate Fat Protein	Mark for Review Calories per gram 4 kcal/g 9 kcal/g 4 kcal/g	П
1 2, Module 1: Math	Review \(\) intersect at value of \(y \)?	Nutrient Carbohydrate Fat Protein The table above shows carbohydrate, fat, and p of protein contains 4 kc consists of 30 grams of together and contains n	Mark for Review Calories per gram 4 kcal/g 9 kcal/g the calories for each nut protein. For example, 1 gral. A serving of certain for fat and carbohydrates to protein. If the food erving, how many calories	trient:

TESTOQUBE

Question 12 of 22 >

Back Next



2

Module 1 2

Annotate Section 2, Module 1: Math Section 2, Module 1: Math Mark for Review ☐ 14 Mark for Review □ 13 $1\,\mbox{foot}$ equals $12\,\mbox{inches}.$ How much is $1\,\mbox{cubic}$ foot (11 ft^3) in cubic inches? (A) (A) 12 (B) (B) 144 © 1,728 **⊕** Straight line $\it CD$ bisects the edge $\it AB$ of an isosceles triangle ABC as shown. If III (D) 20,736 **D** the angle CAB is 30 degrees, what is the value, in radians, of angle ACD? <u>(A)</u> \bigcirc A $\frac{\pi}{3}$ **(B)** \bigcirc B $\frac{\pi}{6}$ IV (C) \bigcirc $\frac{\pi}{2}$ (B) \bigcirc $\frac{2\pi}{3}$ ٧ ۷I VII

Question 13 of 22 >

TEST@QUBE

TEST@QUBE

Question 14 of 22 >

Back Next



II

Ш

IV

Module 1

Section 2, Module 1: Math



Section 2, Module 1: Math



15

Mark for Review ☐

S(t) = 30 + 2t

The formula above models the speed of a car tseconds after passing the speed enforcement camera in $\frac{miles}{hour}$. Find the speed of the car , in $\frac{miles}{hour}$ 3 seconds after the event.

TEST@QUBE

Question 15 of 22 >

Section 2, Module 1: Math



Mark for Review 🗍

Function g is defined by $g(x)=1.5^x$. What is the value of x if g(x) = 1.5?

 \bigcirc 0

16



(B) 1



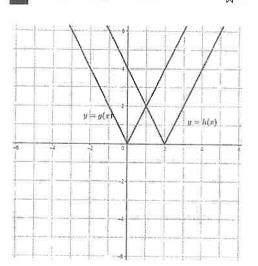
(c) 1.5



(D) 2

(D)

Mark for Review ☐



The graph of g(x) = |2x| on the xy-plane is given. The graph of h(x) is generated by pushing the graph of g(x) by 2 units to the right. Which of the following correctly defines h(x)?

 $\widehat{(A)} \ h(x) = |2x| + 2$



(B) h(x) = |2(x+2)|



(c) h(x) = |2(x-2)|



(D)

 (\widehat{D}) h(x) = |2x| - 2

VI

٧

VII

TEST@QUBE

TEST键QUBE





Module 1

Section 2, Module 1: Math



Section 2, Module 1: Math



18

Mark for Review ☐

Function f is defined by $f(x)=x^2-7$. What is the minimum value of f(x)?

20

Mark for Review ☐

What is a solution for an equation $x^3 - 27 = 0$?

_	- 0
(A)	-3
(0)	



(B) 0



(C) 3



 \bigcirc 9

(D)

IV

II

III

TEST簡QUBE



Section 2, Module 1: Math



19

Mark for Review \square

٧

VI

Data set $oldsymbol{X}$

12, 9, 5, 5, 1, 1, 1, 9, 1, 8

Restaurant \boldsymbol{B} replaces the knife when the durability of the knife reaches below 95%. Durability is defined as the proportion of the knife's original strength or effectiveness that remains after a certain period of use. The formula $D(w) = 100(0.99)^{w}\,$ models the durability of a knife in Restaurant B, w weeks after the purchase. Data set \boldsymbol{X} represents the period of use of all 10 knives in Restaurant ${\cal B}$ in weeks. How many knives in Restaurant ${\cal B}$ are subject to replacement?

VII

TEST TQUBE Question 19 of 22 > TEST@QUBE

Question 20 of 22 >





Module 1

Section 2, Module 1: Math



22



21

Mark for Review ☐

The median payment of 21 employees of Company \emph{A} is 49,000 dollars per year. Which of the following changes in Company \boldsymbol{A} cannot possibly change the median payment?

(A) The company hires 2 more interns each of who receives 32, 000 dollars per year.



(B) The company decides to cut down every employee's annual payment by 1,000 dollars.



(C) The company pays an extra 2, 000 dollars for an employee who receives the top payment.



(D) The company doubles all employee payments.



Section 2, Module 1: Math



The density of a certain steel is 0.25 pounds per cubic inch. Which of the following answer choices most accurately shows the mass, in pounds, of a metal sphere with a diameter of 6 inches?

(A) 13 pounds



(B) 28 pounds



(C) 113 pounds



(D) 339 pounds



IV

III

II

V

VI

VII

TESTOQUBE

Question 21 of 22 >

TEST键QUBE





