Section 2, Module 1: Math ✏ Annotate ⋮

1   Mark for Review 🔖

How do the mean and standard deviation of Class A compare to those of Class B based on the scores of their students given in the list below?

Class A	60	70	65	78	62
Class B	78	35	45	50	40

(A) Class A has a greater mean but lower standard deviation than Class B.

(B) Class A has a greater mean and standard deviation than Class B.

(C) Class A has a lower mean but greater standard deviation than Class B.

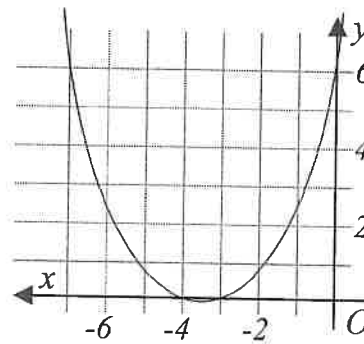(D) Class A has a lower mean and lower standard deviation than Class B.

2   Mark for Review 🔖

What is the most appropriate function to describe the graph depicted below?

(A) $(x+4)(x+3)$

(B) $(x+4)(x+3)+6$

(C) $0.5(x+4)(x+3)$

(D) $2(x+4)(x+3)$

I
II
III
IV
V
VI
VII

I

II

III

IV

V

VI

VII

3   Mark for Review 🔖

Out of 300 residents in a town, a sample was randomly selected and asked if they were satisfied with the air quality. 30% of those surveyed responded positively. Based on this result, what is the most accurate estimate of the total number of residents in the town who are satisfied with the air quality?

(A) 60   (A)

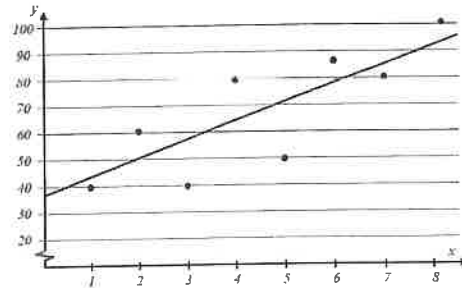(B) 30   (B)

(C) 90   (C)

(D) 120   (D)

4   Mark for Review 🔖

Which equation provides the best estimate for the slope of the line of best fit for the given graph below?

(A) -8 (A)

(B) 20   (B)

(C) -20 (C)

(D) 8   (D)

5 Mark for Review 🔖

Which expression is equivalent to $(a^4b^3c^{-1})(b^2c^{-3})$, where $a, b,$ and c are positive?

(A) $a^8b^{-9}c^3$

(B) $a^4b^5c^{-4}$

(C) $a^4b^6c^3$

(D) $a^8b^3c^{-2}$

TEST🟦QUBE   Question 5 of 22 >

6 Mark for Review 🔖

The function g represents the distance, in miles, from home to school after driving m miles. Based on this model, what is the initial distance in miles from home to school?

$$g(m) = -0.5m + 20$$

(A) 15

(B) 10

(C) 20

(D) None of the above

TEST🟦QUBE   Question 6 of 22 >

7 Mark for Review 🔖

Given that a table provides the distribution of favorite classes and grade levels of 100 students, what is the likelihood of randomly selecting a student who is a sophomore and has Math as their favorite class?

Grade	Favorite Class			
	Math	English	Science	Total
Freshman	9	8	5	22
Sophomore	8	9	12	29
Junior	4	10	8	22
Senior	9	13	5	27
Total	30	40	30	100

(A) 2/25

(B) 3/10

(C) 29/100

(D) 1/2

TEST🟦QUBE   Question 7 of 22 >   Back Next

I
II
III
IV
V
VI
VII

167

2

I

II

III

IV

V

VI

VII

Annotate ⋮

8   Mark for Review 🔖

A right triangle ABC is similar to right triangle DEF, where angle B corresponds to angle E and angle A corresponds to angle D. If, the length of AB is 3, BC is 4 and DE is 6, what is the length of DF? (Angles B and E are right angles.)

(A) 12   Ⓐ

(B) 5   Ⓑ

(C) 10   Ⓒ

(D) 8   Ⓓ

Annotate ⋮

9   Mark for Review 🔖

Which of the following would be the **approximate** value of James' house after a year if it is currently worth $200,000$ and its value increases by 25 percent every three months?

(A) $\$250,000$ Ⓐ

(B) $\$390,625$ Ⓑ

(C) $\$312,500$ Ⓒ

(D) $\$488,281$ Ⓓ

2

Annotate ⋮

10   Mark for Review 🔖

What is the y-coordinate of the y-intercept of function g if it is perpendicular to $h(x) = 0.5x + 48$ and passes through the x-intercept at $(3, 0)$?

(A) 6   Ⓐ

(B) -2 Ⓑ

(C) 48   Ⓒ

(D) -6 Ⓓ

Annotate ⋮

11   Mark for Review 🔖

On the election ballot, there was a proposal for a new grading policy. The results showed that there were twice as many students who voted in favor of the proposal as those who voted against it. If there were 2,000 students who voted against the proposal, how many students voted in favor of it?

(A) 1000   Ⓐ

(B) 2000   Ⓑ

(C) 4000   Ⓒ

(D) 6000   Ⓓ

12   Mark for Review 🔖

What is the volume, in cubic centimeters, of a rectangular prism with a length of $10cm$, a width of $6cm$, and a height of $8cm$?

[   ]

13   Mark for Review 🔖

How many real solutions does the equation below have?
$$8x^2 + 17x + 3 = 0$$

(A) Exactly one   (A)

(B) Zero   (B)

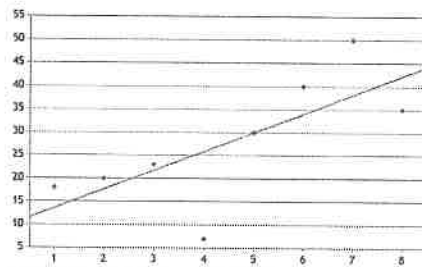(C) Infinitely many   (C)

(D) Exactly two   (D)

14   Mark for Review 🔖

Which equation among the options below best represents the line of best fit in the scatterplot displaying the relationship between variables x and y? (Note: The graph below does not illustrate $x = 0$.)

(A) $1.25x + 20$ (A)

(B) $-1.25x + 20$ (B)

(C) $4x + 10$ (C)

(D) $-4x - 10$ (D)

WEEK4.7

---

15   Mark for Review 🔖

Bob bought a phone that was on sale at a store. The phone was on 70% discount but included a 20% tax which ended up costing Bob 900 dollars. What was the original price of the phone?

(A) $1000   ~~(A)~~

(B) $1500   ~~(B)~~

(C) $2500   ~~(C)~~

(D) $3000   ~~(D)~~

---

16   Mark for Review 🔖

What is the area, in square meters, of a rectangular garden that has a perimeter of 100 meters and where the length is 10 meters more than the width?
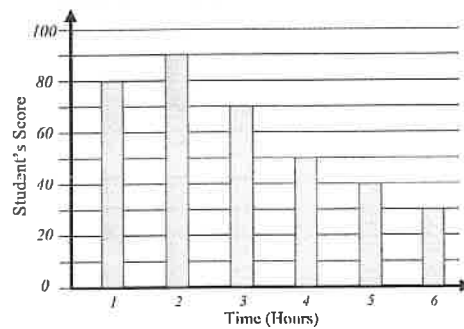
[   ]

---

17   Mark for Review 🔖

The bar graph below shows the scores for each student in Mr.Jackson's math class where each student spent different amounts of time preparing for the exam. What is the average score of the students based on the bar graph?

[   ]

Annotate ⋮

18   Mark for Review 🔖

In a game of rock paper scissors, two players, Bob and Alice, choose one of the three choices at random. What is the probability that both players choose the same shape?

(A) 1/3   (A)

(B) 1/9   (B)

(C) 2/3   (C)

(D) 1   (D)

TEST🔲QUBE   `Question 18 of 22 >`

Annotate ⋮

20   Mark for Review 🔖

James owns a rectangular garden that has a length of 10 meters and a width of 8 meters. He wants to put a circular pond in the center of the garden, and the pond has a radius of 2 meters. Which of the following best approximates the area of the garden that is not covered by the pond?

(A) 40.32 square meters   (A)

(B) 64.47 square meters   (B)

(C) 80.43 square meters   (C)

(D) 67.43 square meters   (D)

TEST🔲QUBE   `Question 20 of 22 >`

Annotate ⋮

19   Mark for Review 🔖

A bag contains 10 red marbles, 5 blue marbles, and 4 green marbles. If two marbles are drawn at random, without replacement, what is the probability that both marbles are red?

(A) 10/19   (A)

(B) 5/19   (B)

(C) 3/11   (C)

(D) 3/18   (D)

TEST🔲QUBE   `Question 19 of 22 >`

Annotate ⋮

21   Mark for Review 🔖

A circle passes through the points $(-3, 3)$ and $(9, 3)$. The two points, when connected together by a line, passes through the center of the circle. Find the radius of the circle.

TEST🔲QUBE   `Question 21 of 22 >`   `Back` `Next`

Section 2, Module 1: Math

Annotate

22   Mark for Review 🏳

An elevator can carry a maximum of $1,000$ pounds. The elevator operator weighs 200 pounds and each passenger weighs 150 pounds. What is the maximum number of passengers that the elevator can carry if the elevator is already carrying a load of 300 pounds?

(A) 4 passengers   (A)

(B) 3 passengers   (B)

(C) 2 passengers   (C)

(D) 5 passengers   (D)

172

Move on to the
Next Section ≫