

**Section 3**  
**Quantitative Reasoning**  
**25 Questions**

**Directions: For each question, indicate the best answer using the directions given.**

**Notes:** All numbers used are real numbers.

All figures are assumed to lie in a plane unless otherwise indicated.

Geometric figures, such as circles, triangles, and quadrilaterals, **are not necessarily** drawn to scale. That is, you should **not** assume that quantities such as lengths and angle measures are as they appear in a figure. You should assume, however, that lines shown as straight are actually straight, points on a line are in the order shown, and more generally, all geometric objects are in the relative positions shown. For questions with geometric figures, you should base your answers on geometric reasoning, not on estimating or comparing quantities from how they are drawn in the geometric figure.

Coordinate systems, such as  $xy$ -planes and number lines, **are** drawn to scale; therefore, you can read, estimate, or compare quantities in such figures from how they are drawn in the coordinate system.

Graphical data presentations, such as bar graphs, circle graphs, and line graphs, **are** drawn to scale; therefore, you can read, estimate, or compare data values from how they are drawn in the graphical data presentation.

**GO ON TO THE NEXT PAGE.**

For each of Questions 1–9, compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given. Select one of the following four answer choices. A symbol that appears more than once in a question has the same meaning throughout the question.

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

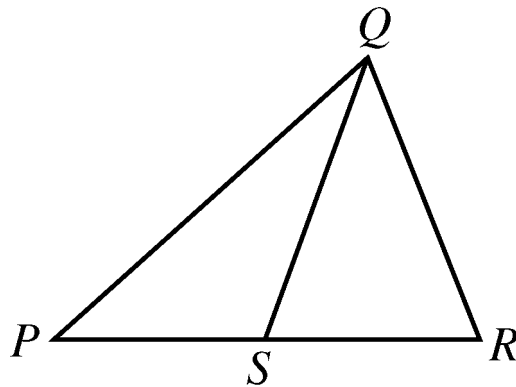
Quantity A

Quantity B

**Example 1:**  $(2)(6)$

$2 + 6$

The correct answer choice for Example 1 is (A).  $(2)(6)$ , or 12, is greater than  $2 + 6$ , or 8.



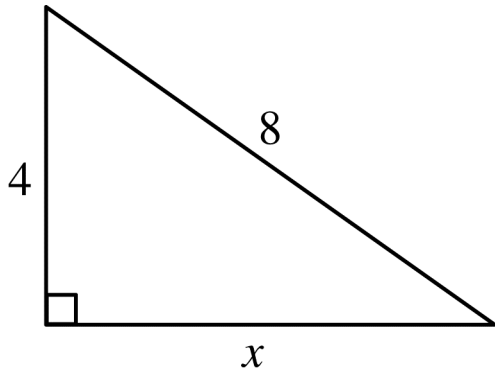
**Example 2:**  $PS$

$SR$

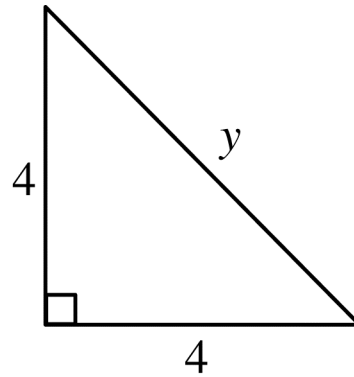
The correct answer choice is (D). The relationship between  $PS$  and  $SR$  cannot be determined from the information given since equal measures cannot be assumed, even though  $PS$  and  $SR$  appear to be equal in the figure.

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**GO ON TO THE NEXT PAGE.**



Quantity A



Quantity B

1.  $x$   $y$

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

$$(x - 2y)(x + 2y) = 4$$

Quantity A

Quantity B

2.  $x^2 - 4y^2$  8

- (A) Quantity A is greater.
- (B) Quantity B is greater.
- (C) The two quantities are equal.
- (D) The relationship cannot be determined from the information given.

**GO ON TO THE NEXT PAGE.**

A certain recipe requires  $\frac{3}{2}$  cups of sugar and makes 2 dozen cookies.  
(1 dozen = 12)

Quantity A

Quantity B

3. The amount of sugar  
required for the same  
recipe to make 30 cookies

2 cups

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

A power station is located on the boundary of a square region that measures 10 miles on each side. Three substations are located inside the square region.

Quantity A

Quantity B

4. The sum of the distances from the power station to each of the substations
- 30 miles

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

$$6 < x < 7$$
$$y = 8$$

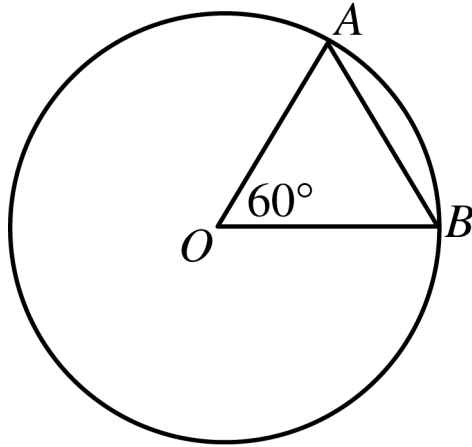
Quantity A

Quantity B

5.  $\frac{x}{y}$
- 0.85

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**



$O$  is the center of the circle and the perimeter of  $\triangle AOB$  is 6.

Quantity A

Quantity B

6. The circumference of  
the circle

12

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
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  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

Quantity A

Quantity B

7. The standard deviation of a set of 5 different integers, each of which is between 0 and 10

The standard deviation of a set of 5 different integers, each of which is between 10 and 20

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

$$x > 1$$

Quantity A

Quantity B

8.  $x(x^2)^4$

$$(x^3)^3$$

- (A) Quantity A is greater.  
(B) Quantity B is greater.  
(C) The two quantities are equal.  
(D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**

$$x \neq 0$$

Quantity A

Quantity B

9.

$$|x| + |-2|$$

$$|x - 2|$$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**



**Questions 10–25 have several different formats, including both selecting answers from a list of answer choices and numeric entry. With each question, answer format instructions will be given.**

### **Numeric-Entry Questions**

These questions require a number to be entered by circling entries in a grid. If you are not filling in your own answers, your scribe should be familiar with these instructions.

1. Your answer may be an integer, a decimal, or a fraction, and it may be negative.
2. Equivalent forms of the correct answer, such as 2.5 and 2.50, are all correct. Although fractions do not need to be reduced to lowest terms, they may need to be reduced to fit in the grid.
3. Enter the exact answer unless the question asks you to round your answer.
4. If a question asks for a fraction, the grid will have a built-in division slash (/). Otherwise, the grid will have a decimal point.
5. Start your answer in any column, space permitting. Circle no more than one entry in any column of the grid. Columns not needed should be left blank.
6. Write your answer in the boxes at the top of the grid and circle the corresponding entries. **You will receive credit only if your grid entries are clearly marked, regardless of the number written in the boxes at the top.**

**GO ON TO THE NEXT PAGE.**

**Examples of acceptable ways to use the grid:**

Integer answer: 502 (either position is correct)

		<b>5</b>	<b>0</b>	<b>2</b>			
—	.	.	.	.	.	.	.
	0	0	⓪	0	0	0	0
	1	1	1	1	1	1	1
	2	2	2	Ⓜ	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	Ⓟ	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

				<b>5</b>	<b>0</b>	<b>2</b>	
—	.	.	.	.	.	.	.
	0	0	0	0	⓪	0	0
	1	1	1	1	1	1	1
	2	2	2	2	2	Ⓜ	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	Ⓟ	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

**GO ON TO THE NEXT PAGE.**

Decimal Answer:  $-4.13$

-				<b>4</b>	.	<b>1</b>	<b>3</b>
⊖	.	.	.	.	⊙	.	.
	0	0	0	0	0	0	0
	1	1	1	1	1	①	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	③
	4	4	4	④	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

**GO ON TO THE NEXT PAGE.**

Fraction Answer:  $-\frac{2}{10}$

-		<b>2</b>		/	<b>1</b>	<b>0</b>	
⊖	0	0	0		0	⓪	0
	1	1	1		①	1	1
	2	②	2		2	2	2
	3	3	3		3	3	3
	4	4	4		4	4	4
	5	5	5		5	5	5
	6	6	6		6	6	6
	7	7	7		7	7	7
	8	8	8		8	8	8
	9	9	9		9	9	9

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

$$7x + 3y = 12$$

$$3x + 7y = 6$$

10. If  $x$  and  $y$  satisfy the system of equations shown, what is the value of  $x - y$ ?

(A)  $\frac{2}{3}$

(B)  $\frac{3}{2}$

(C) 1

(D) 4

(E) 6

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**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all five of the answer choices.

11. In triangle  $ABC$ , the measure of angle  $A$  is  $25^\circ$  and the measure of angle  $B$  is greater than  $90^\circ$ . Which of the following could be the measure of angle  $C$  ?

Indicate all possible values.

- A  $12^\circ$
  - B  $15^\circ$
  - C  $45^\circ$
  - D  $50^\circ$
  - E  $70^\circ$
- 

This question has five answer choices. Select the best **one** of the answer choices given.

12. What is the least integer  $n$  such that  $\frac{1}{2^n} < 0.001$  ?

- A 10
  - B 11
  - C 500
  - D 501
  - E There is no such least value.
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

13. In the sunshine, an upright pole 12 feet tall is casting a shadow 8 feet long. At the same time, a nearby upright pole is casting a shadow 10 feet long. If the lengths of the shadows are proportional to the heights of the poles, what is the height, in feet, of the taller pole?

- (A) 10
  - (B) 12
  - (C) 14
  - (D) 15
  - (E) 18
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

14. If  $a$  is the smallest prime number greater than 21 and  $b$  is the largest prime number less than 16, then  $ab =$

(A) 299

(B) 323

(C) 330

(D) 345

(E) 351

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**GO ON TO THE NEXT PAGE.**



This question does not have any answer choices; it is a numeric-entry question. To answer this question, enter a number by circling entries in the grid provided below. The number can include a decimal point, and can be positive, negative, or zero. The number entered cannot be a fraction.

15. The total amount of Judy's water bill for the last quarter of the year was \$40.50. The bill consisted of a fixed charge of \$13.50 plus a charge of \$0.0075 per gallon for the water used in the quarter. For how many gallons of water was Judy charged for the quarter?

—	.	.	.	.	.	.	.	
	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	
	2	2	2	2	2	2	2	
	3	3	3	3	3	3	3	
	4	4	4	4	4	4	4	
	5	5	5	5	5	5	5	
	6	6	6	6	6	6	6	
	7	7	7	7	7	7	7	
	8	8	8	8	8	8	8	
	9	9	9	9	9	9	9	

gallons

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**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

List *R*: 28, 23, 30, 25, 27

List *S*: 22, 19, 15, 17, 20

16. The median of the numbers in list *R* is how much greater than the median of the numbers in list *S* ?

(A) 8

(B) 10

(C) 12

(D) 13

(E) 15

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**GO ON TO THE NEXT PAGE.**

Questions 17-20 are based on the data presented on the facing page.  
In order to fit on the page, the data presentation has been turned  
90 degrees.

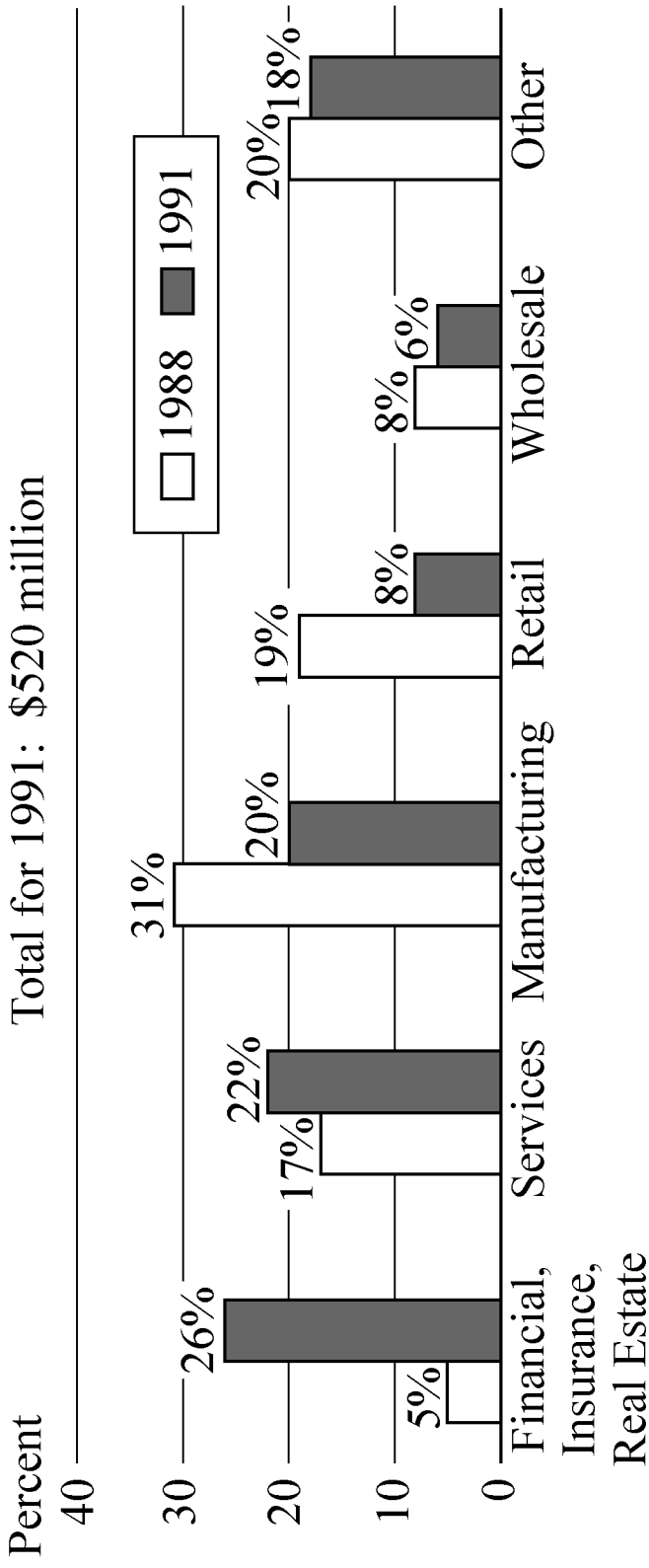
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**GO ON TO THE NEXT PAGE.**

Corporate Support for the Arts by Sector in 1988 and 1991

Total for 1988: \$630 million

Total for 1991: \$520 million



**GO ON TO THE NEXT PAGE.**

This question does not have any answer choices; it is a numeric-entry question. To answer this question, enter a number in the grid provided below. The number can include a decimal point, and can be positive, negative, or zero. The number entered cannot be a fraction.

17. The two corporate sectors that increased their support for the arts from 1988 to 1991 made a total contribution in 1991 of approximately how many million dollars?

Give your answer to the **nearest 10 million dollars**.

								million dollars
—	.	.	.	.	.	.	.	
	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	
	2	2	2	2	2	2	2	
	3	3	3	3	3	3	3	
	4	4	4	4	4	4	4	
	5	5	5	5	5	5	5	
	6	6	6	6	6	6	6	
	7	7	7	7	7	7	7	
	8	8	8	8	8	8	8	
	9	9	9	9	9	9	9	

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

18. How many of the six corporate sectors listed each contributed more than \$60 million to the arts in both 1988 and 1991 ?
- (A) One
  - (B) Two
  - (C) Three
  - (D) Four
  - (E) Five
- 

This question has five answer choices. Select the best **one** of the answer choices given.

19. From 1988 to 1991, which corporate sector decreased its support for the arts by the greatest dollar amount?
- (A) Services
  - (B) Manufacturing
  - (C) Retail
  - (D) Wholesale
  - (E) Other
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

20. Of the retail sector's 1991 contribution to the arts,  $\frac{1}{4}$  went to symphony orchestras and  $\frac{1}{2}$  of the remainder went to public television. Approximately how many million dollars more did the retail sector contribute to public television that year than to symphony orchestras?

- (A) 5.2
  - (B) 6.3
  - (C) 10.4
  - (D) 13.0
  - (E) 19.5
- 

**GO ON TO THE NEXT PAGE.**

This question has three answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all three of the answer choices.

21. The total number of recording titles distributed by music distributors  $L$  and  $M$  is 9,300. The number of recording titles distributed by  $L$  is 7,100, and the number of recording titles distributed by  $M$  is 5,200. Which of the following statements must be true?

Indicate all such statements.

- A More than half of the titles distributed by  $L$  are also distributed by  $M$ .
- B More than half of the titles distributed by  $M$  are also distributed by  $L$ .
- C No titles are distributed by both  $L$  and  $M$ .
- 

**GO ON TO THE NEXT PAGE.**



This question has five answer choices. Select the best **one** of the answer choices given.

22. If  $c$  and  $d$  are positive integers and  $m$  is the greatest common factor of  $c$  and  $d$ , then  $m$  must be the greatest common factor of  $c$  and which of the following integers?

(A)  $c + d$

(B)  $2 + d$

(C)  $cd$

(D)  $2d$

(E)  $d^2$

---

**GO ON TO THE NEXT PAGE.**

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23. The average (arithmetic mean) of the 11 numbers in a list is 14. If the average of 9 of the numbers in the list is 9, what is the average of the other 2 numbers?

—	.	.	.	.	.	.	.
	0	0	0	0	0	0	0
	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
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	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

24. Of the 750 participants in a professional meeting, 450 are females and  $\frac{1}{2}$  of the female and  $\frac{1}{4}$  of the male participants are less than thirty years old. If one of the participants will be randomly selected to receive a book prize, what is the probability that the person selected will be less than thirty years old?

(A)  $\frac{1}{8}$

(B)  $\frac{1}{3}$

(C)  $\frac{3}{8}$

(D)  $\frac{2}{5}$

(E)  $\frac{3}{4}$

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

25. In the  $xy$ -plane, what is the slope of the line whose equation is  $3x - 2y = 8$  ?

(A)  $-4$

(B)  $-\frac{8}{3}$

(C)  $\frac{2}{3}$

(D)  $\frac{3}{2}$

(E)  $2$

---

**STOP**

**In an actual test, once you complete a section you may not return to it. The answer key for this section is in the separate book titled “Practice General Test # 1: Answer Key for Sections 1-4.”**

**Section 4**  
**Quantitative Reasoning**  
**25 Questions**

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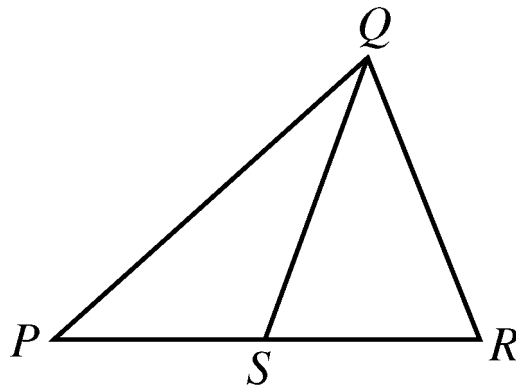
Quantity A

Quantity B

**Example 1:**  $(2)(6)$

$2 + 6$

The correct answer choice for Example 1 is (A).  $(2)(6)$ , or 12, is greater than  $2 + 6$ , or 8.



**Example 2:**  $PS$

$SR$

The correct answer choice is (D). The relationship between  $PS$  and  $SR$  cannot be determined from the information given since equal measures cannot be assumed, even though  $PS$  and  $SR$  appear to be equal in the figure.

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**GO ON TO THE NEXT PAGE.**

$x$  is a positive integer and  $y$  is a negative integer.

Quantity A

Quantity B

1.

$x - y$

$y - x$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

The probability that events  $E$  and  $F$  will both occur is 0.42.

Quantity A

Quantity B

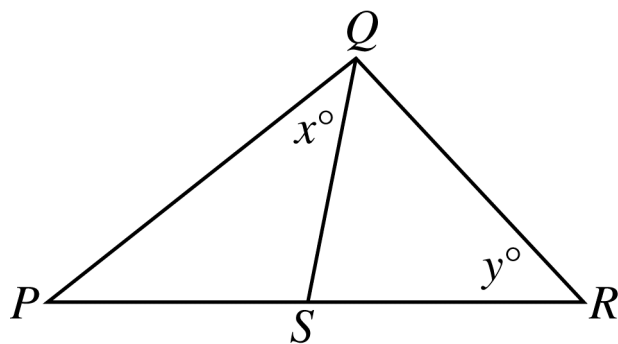
2.

The probability that event  $E$  will occur

0.58

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
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- 

**GO ON TO THE NEXT PAGE.**



$$PS = SR$$

Quantity A

Quantity B

3.

$x$

$y$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

**GO ON TO THE NEXT PAGE.**



$a$  and  $b$  are positive integers.

Quantity A

Quantity B

4.

$$\frac{a}{b}$$

$$\frac{a + 3}{b + 3}$$

- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
  - (D) The relationship cannot be determined from the information given.
- 

The arithmetic mean of 100 measurements is 23, and the arithmetic mean of 50 additional measurements is 27.

Quantity A

Quantity B

5. The arithmetic mean of the 150 measurements

25

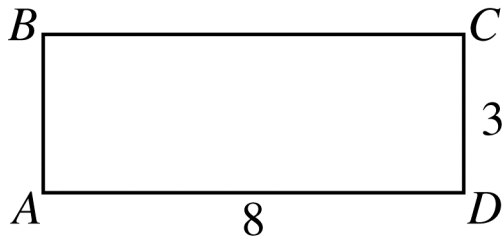
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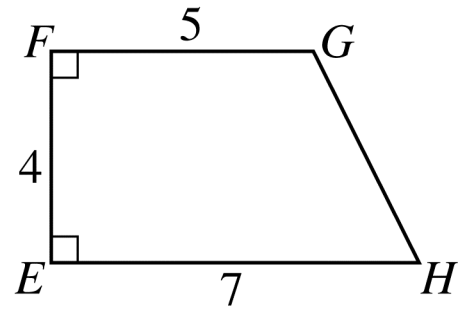








Quantity A



Quantity B

9.      The area of rectangular region  $ABCD$       The area of trapezoidal region  $EFGH$
- (A) Quantity A is greater.
  - (B) Quantity B is greater.
  - (C) The two quantities are equal.
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- 

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**GO ON TO THE NEXT PAGE.**

**Examples of acceptable ways to use the grid:**

Integer answer: 502 (either position is correct)

		<b>5</b>	<b>0</b>	<b>2</b>			
—	.	.	.	.	.	.	.
	0	0	⓪	0	0	0	0
	1	1	1	1	1	1	1
	2	2	2	Ⓜ	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	Ⓟ	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

				<b>5</b>	<b>0</b>	<b>2</b>	
—	.	.	.	.	.	.	.
	0	0	0	0	⓪	0	0
	1	1	1	1	1	1	1
	2	2	2	2	2	Ⓜ	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	Ⓟ	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

**GO ON TO THE NEXT PAGE.**

Decimal Answer:  $-4.13$

-				<b>4</b>	.	<b>1</b>	<b>3</b>
⊖	.	.	.	.	⊙	.	.
	0	0	0	0	0	0	0
	1	1	1	1	1	①	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	③
	4	4	4	④	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

**GO ON TO THE NEXT PAGE.**



Fraction Answer:  $-\frac{2}{10}$

-		<b>2</b>		/	<b>1</b>	<b>0</b>	
⊖	0	0	0		0	⓪	0
	1	1	1		①	1	1
	2	②	2		2	2	2
	3	3	3		3	3	3
	4	4	4		4	4	4
	5	5	5		5	5	5
	6	6	6		6	6	6
	7	7	7		7	7	7
	8	8	8		8	8	8
	9	9	9		9	9	9

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

10. If  $j$  and  $k$  are integers and  $j - k$  is even, which of the following must be even?

(A)  $k$

(B)  $jk$

(C)  $j + 2k$

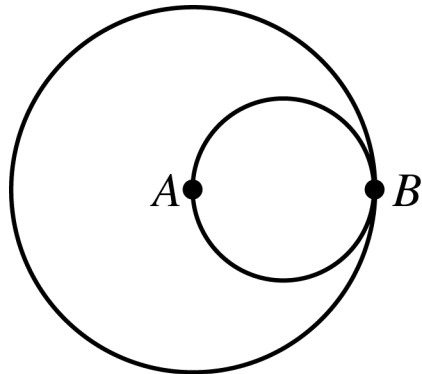
(D)  $jk + j$

(E)  $jk - 2j$

---

**GO ON TO THE NEXT PAGE.**

This question does not have any answer choices; it is a numeric-entry question. To answer this question enter a fraction in the grid provided below. The fraction can be positive or negative. Neither the numerator nor the denominator of the fraction can include a decimal point. The fraction does not have to be in lowest terms.



11. The circles shown are tangent at point  $B$ . Point  $A$  is the center of the larger circle, and line segment  $AB$  (not shown) is a diameter of the smaller circle. The area of the smaller circle is what fraction of the area of the larger circle?

				/			
-	0	0	0		0	0	0
	1	1	1		1	1	1
	2	2	2		2	2	2
	3	3	3		3	3	3
	4	4	4		4	4	4
	5	5	5		5	5	5
	6	6	6		6	6	6
	7	7	7		7	7	7
	8	8	8		8	8	8
	9	9	9		9	9	9

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, and as many as all five of the answer choices.

12. Last year Kate spent between  $\frac{1}{4}$  and  $\frac{1}{3}$  of her gross income on her mortgage payments. If Kate spent \$13,470 on her mortgage payments last year, which of the following could have been her gross income last year?

Indicate all possible values.

- A \$40,200
  - B \$43,350
  - C \$47,256
  - D \$51,996
  - E \$53,808
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

13. In State *X*, all vehicle license plates have 2 letters from the 26 letters of the alphabet followed by 3 one-digit numbers. How many different license plates can State *X* have if repetition of letters and numbers is allowed?

- (A) 23,400
  - (B) 60,840
  - (C) 67,600
  - (D) 608,400
  - (E) 676,000
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

14. If  $p$  is a negative number and  $0 < s < |p|$ , which of the following must also be a negative number?

(A)  $(p + s)^2$

(B)  $(p - s)^2$

(C)  $(s - p)^2$

(D)  $p^2 - s^2$

(E)  $s^2 - p^2$

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

15. If  $\frac{1}{2^k} + \frac{1}{2^k} = \frac{1}{2^x}$ , then  $x$  expressed in terms of  $k$  is

(A)  $\frac{k}{2}$

(B)  $k - 1$

(C)  $k + 1$

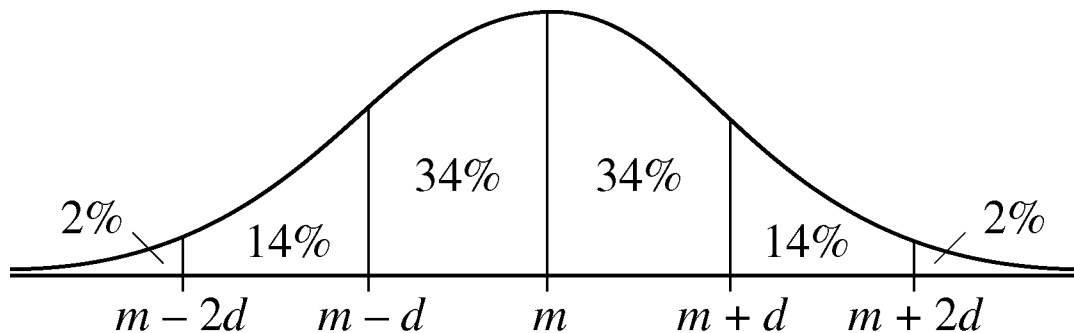
(D)  $2k$

(E)  $k^2$

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.



16. The figure shows a normal distribution with mean  $m$  and standard deviation  $d$ , including approximate percents of the distribution in each of the six regions shown.

For a population of 800,000 subway riders, the numbers of subway trips taken per rider last January are approximately normally distributed with a mean of 56 trips and a standard deviation of 13 trips. Approximately how many of the riders took between 30 and 43 trips last January?

- (A) 60,000
- (B) 110,000
- (C) 160,000
- (D) 210,000
- (E) 270,000

---

**GO ON TO THE NEXT PAGE.**



Questions 17-20 are based on the data presented on the facing page.  
In order to fit on the page, the data presentation has been turned  
90 degrees.

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**GO ON TO THE NEXT PAGE.**

## STUDENT ENROLLMENT AT A SMALL COLLEGE

Distribution of Enrollment by Class and Gender

Total Enrollment: 1,400

Class	Males	Females
Freshmen	303	259
Sophomores	215	109
Juniors	182	88
Seniors	160	84
<b>Total</b>	<b>860</b>	<b>540</b>

Percent of Total Enrollment Majoring  
in Selected Academic Areas

Area	Percent
Humanities	33%
Social sciences	30%
Physical sciences	24%

Note: No student is majoring in  
more than one area.

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

17. The ratio of the number of male freshmen to the number of female sophomores is approximately

- (A) 2 to 1
  - (B) 3 to 1
  - (C) 3 to 2
  - (D) 4 to 1
  - (E) 5 to 3
- 

This question has five answer choices. Select the best **one** of the answer choices given.

18. If the total enrollment is 12 percent greater than it was five years ago, what was the total enrollment five years ago?

- (A) 1,180
  - (B) 1,192
  - (C) 1,220
  - (D) 1,232
  - (E) 1,250
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

19. How many students are either juniors or males or both?

- A 678
  - B 766
  - C 948
  - D 1,130
  - E 1,312
- 

This question has three answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all three of the answer choices.

20. Which of the following statements must be true?

Indicate all such statements.

- A The number of males majoring in physical sciences is greater than the number of females majoring in that area.
  - B Students majoring in either social sciences or physical sciences constitute more than 50 percent of the total enrollment.
  - C The ratio of the number of males to the number of females in the senior class is less than 2 to 1.
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

21. The quantities  $S$  and  $T$  are positive and are related by the equation  $S = \frac{k}{T}$ , where  $k$  is a constant. If the value of  $S$  increases by 50 percent, then the value of  $T$  decreases by what percent?

- (A) 25%
- (B)  $33\frac{1}{3}\%$
- (C) 50%
- (D)  $66\frac{2}{3}\%$
- (E) 75%
- 

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

22. If  $x$  and  $y$  are the tens digit and the units digit, respectively, of the product  $725,278 \times 67,066$ , what is the value of  $x + y$ ?

(A) 12

(B) 10

(C) 8

(D) 6

(E) 4

---

**GO ON TO THE NEXT PAGE.**

This question has five answer choices. Select the best **one** of the answer choices given.

23. A developer has land that has  $x$  feet of lake frontage. The land is to be subdivided into lots, each of which is to have either 80 feet or 100 feet of lake frontage. If  $\frac{1}{9}$  of the lots are to have 80 feet of frontage each and the remaining 40 lots are to have 100 feet of frontage each, what is the value of  $x$  ?

- (A) 400
  - (B) 3,200
  - (C) 3,700
  - (D) 4,400
  - (E) 4,760
- 

**GO ON TO THE NEXT PAGE.**

This question does not have any answer choices; it is a numeric-entry question. To answer this question, enter a number in the grid provided below. The number can include a decimal point, and can be positive, negative, or zero. The number entered cannot be a fraction.

10, 10, 10, 10, 8, 8, 8, 8, 12, 12, 11,  $y$

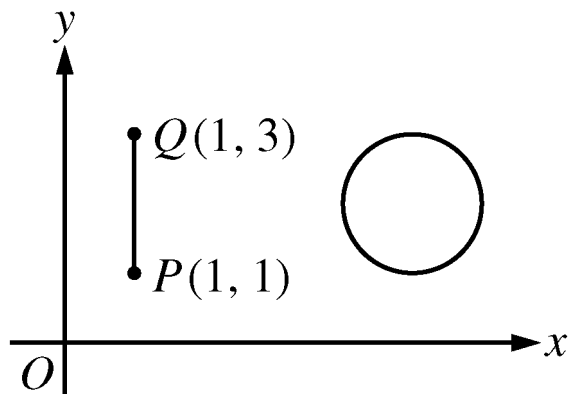
24. The twelve numbers shown represent the age, in years, of the twelve houses on a certain city block. What is the median age, in years, of the twelve houses on the block?

								years
—	.	.	.	.	.	.	.	
	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	
	2	2	2	2	2	2	2	
	3	3	3	3	3	3	3	
	4	4	4	4	4	4	4	
	5	5	5	5	5	5	5	
	6	6	6	6	6	6	6	
	7	7	7	7	7	7	7	
	8	8	8	8	8	8	8	
	9	9	9	9	9	9	9	

**GO ON TO THE NEXT PAGE.**



This question has eight answer choices. Select **all** the answer choices that apply. The correct answer to a question of this type could consist of as few as one, or as many as all eight of the answer choices.



25. The figure shows line segment  $PQ$  and a circle with radius 1 and center  $(5, 2)$  in the  $xy$ -plane. Which of the following values could be the distance between a point on line segment  $PQ$  and a point on the circle?

Indicate all such values.

- A 2.5
- B 3.0
- C 3.5
- D 4.0
- E 4.5
- F 5.0
- G 5.5
- H 6.0

---

**GO ON TO THE NEXT PAGE.**

**STOP**

**In an actual test, once you complete a section you may not return to it. The answer key for this section is in the separate book titled “Practice General Test # 1: Answer Key for Sections 1-4.”**

**This is the end of Revised GRE Practice Test # 1.**

**NO TEST MATERIAL ON THIS PAGE**

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