

## INTERPRETING YOUR RESULTS

After you check your answers on the following pages, fill out this sheet to interpret your results.

### Analytical Writing

To evaluate your performance on the Analytical Writing sections, compare your response to the advice and samples in the Analytical Writing chapter.

### Verbal Reasoning

Refer to the explanations to check your answers. Count the number of questions you got correct in each Verbal Reasoning section, and calculate the total number correct. Find the section of the Interpretive Guide (below) that corresponds to your total to get an idea of how your performance compares to that of other test takers.

Test 1	# Correct
Section 4	
Section 6	
Total	

### Quantitative Reasoning

Refer to the explanations to check your answers. Count the number of questions you got correct in each Quantitative Reasoning section, and calculate the total number correct. Find the section of the Interpretive Guide (below) that corresponds to your total to get an idea of how your performance compares to that of other test takers.

Test 1	# Correct
Section 3	
Section 5	
Total	

### Interpretive Guide

The table below provides a guide for interpreting your performance based on the number of questions you got correct in each subject.

Subject	Above Average	Average	Below Average
Verbal Reasoning	30–40	22–29	1–21
Quantitative Reasoning	33–40	24–32	1–23

Section 3

1. A

Point  $C$  has the same  $x$ -coordinate as point  $D$ , so  $s = 8$ . Point  $C$  also has the same  $y$ -coordinate as point  $B$ , so  $t = 7$ . That means that Quantity A is greater.

2. A

The punch is made with two parts soda and three parts ice cream. This means that in one mixture if you added two parts of soda, then that's  $4 \times 2 = 8$  parts sugar and  $5 \times 2 = 10$  parts citric acid. If you added three parts ice cream, then that's  $3 \times 3 = 9$  parts sugar and  $2 \times 3 = 6$  parts salt. There's  $8 + 9 = 17$  total parts sugar and  $10 + 6 = 16$  total parts citric acid. There's more sugar than citric acid.

3. B

If you Plug In 5 for  $x$ , the total for the 5 days already in the set is 350; after adding the additional 75 degree temperature, the new total is 425, and the new average is  $\frac{425}{6}$ , which reduces to  $70\frac{5}{6}$ , which is less than 71 degrees. This means that  $x$  cannot equal 5 and thus we can eliminate choice (C). If  $x = 4$ , then the total for the 4 days would be 280; after adding 75, the new total would be 355, and the new average would be  $\frac{355}{5}$ , which reduces to 71. Thus we can eliminate choice (A). The answer is choice (B).

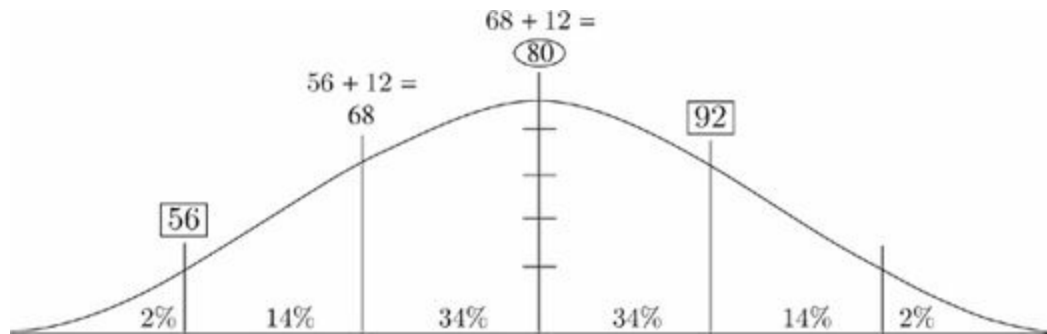
4. D

Because  $\triangle QRS$  is isosceles, side  $RS$  must be equal to one of the other sides, and  $x$  could measure 4 or 7. Thus, the perimeter could be  $4 + 4 + 7 = 15$ , or the perimeter could be  $4 + 7 + 7 = 18$ . You can't tell if the perimeter is greater or less than 17, and, thus, the answer is choice (D). Remember: If it doesn't say "Drawn to scale," you can't assume it is!

5. B

Remember that a normal distribution curve has divisions of 34 percent, 14 percent, and 2 percent on each side of the mean. 80 out of 500 is 16 percent, or 14 percent + 2 percent, and 10 out of 500 is 2 percent. Draw a normal

distribution curve and label it. There are three standard deviations between 92 and 56, so  $92 - 56 = 36$ , and  $36 \div 3 = 12$ . The mean is  $92 - 12 = 80$ , which is smaller than Quantity B.



6. C

Plug In numbers for the sides. Let  $AD = 4$ , so  $EG = 8$ . Let  $l = 3$ . The area of  $ABCD = 3 \times 4 = 12$ , and the area of  $EFG = \frac{1}{2} (3 \times 8) = 12$ . The two quantities can be equal, so eliminate answer choices (A) and (B). Try changing your numbers, and you will see that the two quantities will always be equal.

7. B

FOIL out the equation given, and you'll get  $(3x - 4y)(3x + 4y) = 9x^2 - 16y^2$ , so Quantity A is 2. Quantity B is therefore bigger, and the answer is (B).

8. C

Solve for  $a$  by adding 2 to each side to get  $8a = 24$ . Divide by 8 to find  $a = 3$ . Plug  $a = 3$  into the second equation to find  $4(3) - 1 = 12 - 1 = 11$ . Alternatively, you could save yourself some time by noticing that  $8a - 2$  is  $2(4a - 1)$ . If  $2(4a - 1) = 22$ , divide by 2 to get  $4a - 1 = 11$ .

9. 56

Twenty percent of the sweaters in the store are white, so there are  $200 \times \frac{20}{100} = 40$  white sweaters. There are  $200 - 40 = 160$  sweaters remaining. Of the remaining sweaters,  $160 \times \frac{40}{100} = 64$  are brown. That means that  $160 - 64 = 96$  are blue. There are  $96 - 40 = 56$  more blue sweaters than white sweaters.

10. D

Because  $4^{12}$  is a common factor of both  $4^{13}$  and  $4^{12}$ , you can rewrite the numerator as  $4^{12}(4 - 1)$ . Now look at the whole fraction:  $\frac{4^{12}(4-1)}{4^{11}}$ . You can divide  $4^{12}$  by  $4^{11}$ , leaving you with  $4^1(4 - 1)$ . Now the calculation should be much easier.  $4 \times 3 = 12$ , choice (D).

11. D

Refer to the right side and the left side of the “Subscription to Newsmagazine x, 1970-1985” chart. In 1980, Newsmagazine x accounted for 14.6 percent of newsmagazine subscriptions, and it had 7,000 subscriptions.

12. B

In 1981, Newsmagazine z accounted for 9,400 out of 57,000 newsmagazine subscriptions. Therefore, Newsmagazine z accounted for approximately 9,000 out of 57,000, or  $\frac{1}{6}$ , of the nationwide newsmagazine subscriptions.

13. D

In 1970, there were 1,500 subscriptions to Newsmagazine x, which accounted for approximately 25 percent of total nationwide subscriptions. Total nationwide subscriptions in 1970, then, were equal to about 6,000 (25 percent of total nationwide subscriptions = 1,500). Using the same process, total nationwide subscriptions in 1971 were equal to about 9,000 (30 percent of total nationwide subscriptions = 2,600). The percent increase between 1970 and 1971 is  $\frac{\text{difference}}{\text{original}}$  or  $\frac{9,000 - 6,000}{6,000} = \frac{3,000}{6,000} = \frac{1}{2}$ , or 50 percent.

14. C

In 1973, Newsmagazine x had 3,300 subscriptions, or 20.5 percent of the total number of newsmagazine subscriptions. Set up the calculation to find the total:

$$3,300 = \frac{205x}{100}. \text{ Solve it to find that } x = 16,000.$$

15. C

$$a = 27 \times \frac{1}{3^2} = 3, \text{ and } x = 6 \times \frac{1}{3} = 2. \text{ Find } (12)(3^{-x})(15)(2^{-a}) = (12)(3^{-2})(15)(2^{-3}) = \frac{(12)(15)}{(3^2)(2^3)}. \text{ Now, reduce: } \frac{(2 \times 2 \times 3)(3 \times 5)}{(3 \times 3)(2 \times 2 \times 2)} = \frac{5}{2}.$$

16. B and D

Use the Average Pie to find that Jill's mean of 3.75 for 8 evaluations gives her a current total of  $3.75 \times 8 = 30$  points. Use the Average Pie to find that if she needs an average of 4.0 for 12 scores, she needs  $4.0 \times 12 = 48$  total points. Jill still needs  $48 - 30 = 18$  points. Her four remaining scores must total 18 or greater. Only answers (B) and (D) have a total of at least 18.

17. 270

Your best bet is to plug in values for all the angles, keeping in mind that those inside the triangle must add up to  $180^\circ$ , the ones along  $BC$  must add up to  $180$ , the ones along  $CD$  must add up to  $180^\circ$ , and the ones at  $A$  must add up to  $90^\circ$ . Then add up the marked angles.

18. B

Plug In The Answers starting with choice (C). If the total is 55, then the probability would be  $\left(\frac{3}{55}\right)\left(\frac{2}{54}\right)$ , which does not equal  $\frac{3}{55}$ . The denominator is too large, so try choice (B). If the total is 11, then the probability is  $\left(\frac{3}{11}\right)\left(\frac{2}{10}\right)$ , which reduces to  $\frac{3}{55}$ .

19. D

Use the Group formula:  $\text{Total} = \text{Group}_1 + \text{Group}_2 - \text{Both} + \text{Neither}$ . In this problem the total is 2,400. The question also states that 1,200 students (half of the total) take calculus, so that is  $\text{Group}_1$ ; one-third of that group (400) take both calculus and English. Because every student takes calculus or English or both, the Neither group is zero. Solve for the number of students who take English by plugging these numbers into the group formula:  $2400 = 1200 + \text{Group}_2 - 400$ .

The number of students who take English is 1,600, or choice (D).

20. D

To solve this expression you need to break apart the factorial of 13 to the common prime number in the denominator, in this case the number 2.  $13!$  can be expressed as  $13 \times 12 \times 11 \times 10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$ . When you break apart this factorial into its prime numbers you are left with  $13 \times 11 \times 7 \times 5^2 \times 3^5 \times 2^{10}$ . For a fraction to result in an integer, the denominator of the fraction must share at least one prime factor with the numerator, so at minimum there needs to be one 2, so  $1 \leq x$ . Eliminate (A), (B), and (C). The number of two's that the denominator can have cannot exceed 10 because that is the greatest number of two's in the numerator, so  $x \leq 10$ . The correct answer is (D).

## Section 4

### 1. abundant and inexpensive

The clue for the second blank is “on the earth’s surface, where the processing of chemicals is less costly.” Underwater recovery, in contrast, would be more expensive. The second blank describes what’s not true of the procedure, so use a word that means low-cost. *Cost-effective* is a close match. Use the same clue for the first blank. If the processing of ores from the surface is less costly, those ores must be plentiful. *Abundant* is a good match.

### 2. irresponsible, forestall, and avoidable

The keys to the first blank are the clues “given their responsibilities as democratically elected officials” and “neglect to do everything they could.” These clues indicate that the first blank should have a negative connotation; a word that means something as simple as *bad* would eliminate *thoughtful* and *intuitive*, leaving *irresponsible*. Blanks (ii) and (iii) build on the idea set up in the first half of the sentence. The second blank describes the action that would be bad, so use something that means solve. *Sustain* and *cultivate* are the opposites of what’s needed for the second blank, leaving *forestall*. The last blank describes the type of problem, and entirely suggests it’s a solvable problem. *Avoidable* is close, and it helps the whole sentence make sense.

### 3. erudite

*Despite* is a trigger word that implies a contrast between the student’s actual behavior when presenting her thesis and her mentor’s advice. The student resorted to using slang, language that is informal and unscholarly. Therefore, the word in the blank must mean *formal* or *scholarly*. The only word that fits that description is *erudite*, which is the best choice. The other answer choices can be used to describe speech, but none of these words contrast the mentor’s advice with the student’s use of slang.

### 4. augmented, overwhelmed, and delicate

Start with the second blank. The clue *pungent* tells you this onion did something bad to the delicious stew. *Exaggerated* and *satiated* are positive; *overwhelmed* is the only fit. The trigger *otherwise* tells you to change direction from the third blank’s clue of *pungent*. Look for a word that means *subtle* or *soft*. Only *delicate* fits. For the first blank, the clue is that Steve’s stinky onion hurt the delicate stew. The trigger *although* tells you to change direction. So, this addition of the sweet potato

was good. Only *augmented* fits.

**5. banal, an adept, and sublime**

The first clue is *its focus on such everyday objects as flowers or fruits apparently uninspired*, so the first blank has to mean something such as “uninspired.” *Banal*, which means predictable, matches this. For the second blank, the painter must pay *careful attention*, so the second blank must mean “careful” or “talented,” which matches *an adept*. Since the painting is *exemplary*, the third blank must be *sublime*.

**6. comely and prepossessing**

The first blank describes Viktor Yuschenko’s face. The clue is that his face was *transformed into a monstrous mask by dioxin poisoning* and the trigger word *once* tells us an appropriate word for the blank would be the opposite of monstrous; something like attractive would work nicely. *Quiescent* means calm, and *fatuous* means foolish, so those words don’t work. *Comely*, which means attractive, is the only word that works. The second blank is describing Yulia Tymoshenko. Both the trigger phrase *a study in contrasts* and the clue about *fashion magazines* suggest that a word that means beautiful is appropriate. Though it might not sound like it, *prepossessing* does, in fact, mean beautiful. *Felicitous* means well-expressed, and *decorous* means full of propriety, so although they are both positive words, they aren’t as fitting here as the credited response is.

**7. D**

According to the first sentence, her work can be viewed three different ways. The rest of the passage describes those ways: as the work of a modern poet, of a woman, and of a Native American. Choice (A) is too vague, and the passage doesn’t so much describe her work as how it should be viewed. Choices (B) and (C) are too narrow and don’t describe the overall purpose. Choice (E) doesn’t match the passage.

**8. B**

In the second paragraph the author states, “Mr. Wilson’s praise gives the impression that Feather’s readership is limited to her own culture—an impression which hints that Mr. Wilson is himself measuring her by only one criterion,” which best fits choice (B). Choices (A) and (E) contradict the passage and are too broad and extreme. Choice (C) contradicts the passage, and choice (D) is not supported.

**9. E**



The second sentence of the passage claims, “We could consider her poems as the product of a twentieth-century artist in the tradition of James Joyce, T.S. Eliot, and Wallace Stevens.” Thus, the author mentions Joyce, Eliot, and Stevens in order to describe one context—twentieth-century poetry—in which Feather’s work can be analyzed. Eliminate choice (A) because the author doesn’t compare Feather’s political messages to those of these authors. Eliminate choice (B) because the author doesn’t use these authors to discuss differences between male and female poets. Eliminate choice (C) because the author doesn’t contrast Feather’s themes with those of these authors. Although Joyce, Eliot, and Stevens were, like Feather, twentieth-century artists, the passage doesn’t say that they shared sensibilities, which eliminates choice (D).

**10. C**

Only answer choice (C) provides a clue to the meaning of *urbane* as used here: The urbane buyer is contrasted with the “unsuspecting or naïve buyer,” and so must mean “not unsuspecting” or “not naïve.” Choice (A) tantalizingly dangles the word rural before our eyes, trying to take advantage of that word’s well-known association with the word urban. *Urbane*, though, means *sophisticated*. Moreover, if answer choice (A) were accepted, the strangely illogical proposition that city-dwellers knew best how to buy animals at market would have to be accepted as well. Answer choice (B), thankfully, presents no such difficulties of interpretation and appears in the definition of the obscure expression itself, not in the comparison between unsuspecting and urbane.

**11. It relates to the common Renaissance practice of securing suckling pigs for transport to market in a poke, or drawstring bag**

In this sentence the author defines the term “poke” as a drawstring bag. This is the only instance in which the author gives a definition for a word that the reader may not be familiar with because the word “poke” is not a common term used to describe a drawstring bag.

**12. propriety and decorum**

The clue is “was such a bad-mannered child.” Time acts as a change-of-direction trigger (“now, as an adult”) that indicates the blank should mean something like well-mannered. Only *propriety* and *decorum* mean well-mannered. *Diffidence*, *reticence*, and *brashness* are all traits that would be considered bad-mannered. *Friendliness* does not necessarily mean well-mannered.

**13. whimsical and capricious**

The blank describes how politicians act. The clue is “acting out a deliberate plan.” The change-of-direction trigger *however* tells you that they appear not to have a plan. Words that mean unplanned or random should be in the blank. Both *whimsical* and *capricious* fit this meaning. *Conventional* and *conformist* have the opposite meaning. The other two words are unrelated to the blank.

#### 14. **irksome** and **onerous**

The trigger “even more” tells you to stay in the same direction as the clue. “Forced to take an alternate road,” “two-hour detour,” and “arduous trip” tell you that the journey was difficult. Put a word that means hard or tiring in the blank. Only *irksome* and *onerous* fit this meaning. *Facile* and *glib* describe something easy, and *implacable* and *immutable* describe something that doesn’t change.

#### 15. **adventurous** and **doughty**

The trigger *especially* tells you to stay in the same direction as the clue “willingness to reject prevailing feminine roles and travel to foreign lands alone.” Thus, she has a bold spirit. Only *adventurous* and *doughty* mean bold. Although she is traveling alone, there is nothing to support that she is lonely, as *forlorn* and *desolate* suggest. *Magnanimous* and *bellicose* do not fit.

#### 16. **A**

The argument concludes that the substitution of microfiber clothes for those made from natural fabrics is not financially sound. The premise is that microfiber clothes last as long as natural fabric clothes but are three times as expensive to produce. The argument assumes that there are no other factors that need to be considered to evaluate the cost effectiveness of switching. Choice (A) points out another factor that would affect the overall costs and so weakens the argument. Choice (B) helps to explain why the microfiber synthetic shirt is more expensive to produce than a natural fiber shirt, but it does not weaken the argument. In choice (C), comparing natural fiber shirts and other fiber garments is not relevant. Choice (D) strengthens the argument. Choice (E), by pointing out additional costs associated with microfibers, also strengthens the argument.

#### 17. **E**

The first paragraph presents the Gandhara-first view “... Greek influence in Gandhara promoted the development of the new style and form of representation of the divine.” The second paragraph provides evidence Gandharan Buddhas shared certain features with Greek art. Choice (E) provides additional information about those similarities and is the best choice. Choices (A) and (C) undermine the

idea that Gandharan artists were responding to outside influences. Choice (B) is irrelevant, and choice (D) provides evidence for outside influences in Mathura.

18. B

The first sentence says that “images in human form emerged around the first century A.D.,” and the middle of the first paragraph states that “earlier Buddhist art was largely aniconic.” You can conclude from these statements that the earliest Buddhist art didn’t usually depict the Buddha in human form. Eliminate choice (A); although human representations first appeared in these regions, the passage doesn’t say that the first Buddhist art appeared in the same places. The passage doesn’t support choices (C), (D), and (E).

19. B and C

For choice (A), the passage says only that the age of these fossils was “far too recent for humans to have evolved” from them. This does not give an age for the fossils. The last sentence says that “the concept of ‘missing link’ has changed dramatically,” which answers the question in choice (B). The last sentence also answers the question in choice (C) because it says, “the value of his discovery and the debate it generated is unquestionable.”

20. **Although the concept of “missing link” has changed dramatically and a recent analysis showed Dubois’s fossils to be far too recent for humans to have evolved from this “missing link,” the value of his discovery and the debate it generated is unquestionable.**

In the last sentence, the author states that the value of Dubois’s fossils is “unquestionable.” This statement represents the author’s conclusion.

## Section 5

1. B

Draw the figure. You have a square with a circle inside of it that has a radius of 6. Therefore, the length of one side of the square is 12. Quantity A asks for the area of the largest triangle that can be drawn inside the square. The largest triangle cuts the square in half diagonally (subsequently creating a  $45 : 45 : 90$  triangle) and has a height and base of length 12. So the area of the triangle is  $\frac{1}{2}(12)(12) = 72$ . Quantity B is asking for the area of the circle with center R. So the area of the circle is  $6^2\pi$ , or  $36\pi$ .  $\pi$  is approximately 3, so you know that 36 times 3 is greater than 72. Quantity B is greater.

2. B

There are a lot of variables in this problem, so starting thinking about Plugging In. The variable  $a$  has to be the same for each equation. You cannot pick just any number, however, because you must satisfy the equations. When you feel stuck on a problem start looking at the numbers you know; remember the math will always work out nicely. Examining the two equations you realize that  $158 \times 4 = 632$ , so these two numbers are related. So the easiest number to Plug In for  $a$  is 632. Now you know that  $xs = 1$ , and  $ys = 4$ . Since the variable is the same in both equations, they cancel each other out and you are left with  $x = 1$  and  $y = 4$ . Quantity B is greater.

3. C

$135 \div 7 = 19$ , remainder 2.  $135 \div 19 = 7$ , remainder 2. Both Quantity A and Quantity B equal 2.

4. D

Plug In. Let  $a = 8$  and  $b = 4$ . Quantity A can be greater than Quantity B, so eliminate answer choices (B) and (C). Now let  $a = b = 1$ . Quantity A can be equal to Quantity B, so eliminate answer choice (A).

5. B

Plug In numbers for  $a$ ,  $b$ , and  $c$ . If  $a = -2$ ,  $b = 3$ , and  $c = 4$ , then  $ac = -8$ . Quantity B is greater; eliminate choices (A) and (C). If  $a = 2$ ,  $b = -3$ , and  $c = -4$ , then  $ac$  is still negative. Quickly consider different numbers, but realize that Quantity A will always be negative.

6. D

If  $|x| = 6$ , then  $x = 6$ , or  $x = -6$ . If  $x = 6$ , then  $y = 6 + 4 = 10$ . The quantities are equal, so you can eliminate choices (A) and (B). If  $x = -6$ , then  $y = -6 + 4 = -2$ , and Quantity B is greater. Eliminate choice (C), and select choice (D).

7. B

Plug In for the radius,  $n$ , and solve for  $x$ . Let's make  $n = 3$ : The area of the base of the cylinder is now  $9\pi$ , and the circumference of the base is  $6\pi$ . The ribbon itself is a rectangle, and we now know both its area, which is the same as the area of the base, and its length, which is the same as the circumference of the base. Now we can solve for  $x$ , which is the other side of the rectangle:  $6\pi x = 9\pi$ , so  $x = \frac{9\pi}{6\pi}$ , or  $\frac{3}{2}$ . Our value for  $n$  is greater than our value for  $x$ , so Quantity B is greater.

8. C

Remember that median is the number that ends up in the middle of the list when you rewrite the list in numerical order. Find  $x$ : The even numbers are 2, 2, 6, 8. Because 2 and 6 are in the middle, find their mean:  $\frac{2+6}{2} = 4$ . So,  $x = 4$ . Find  $y$ : The prime numbers are 2, 2, 3, 5, 7, 13. Remember: 1 is not prime. Because 3 and 5 are in the middle, find their mean:  $\frac{3+5}{2} = 4$ . So,  $y = 4$ . Find  $z$ : The least is 1, and the greatest is 15. The median of 1 and 15 is  $\frac{1+15}{2} = 8$ . So,  $z = 8$ . For Quantity A, find the median of  $2(4)$ , 4, and 8: So, the median of 4, 8, 8 is 8. Quantity B is also 8.

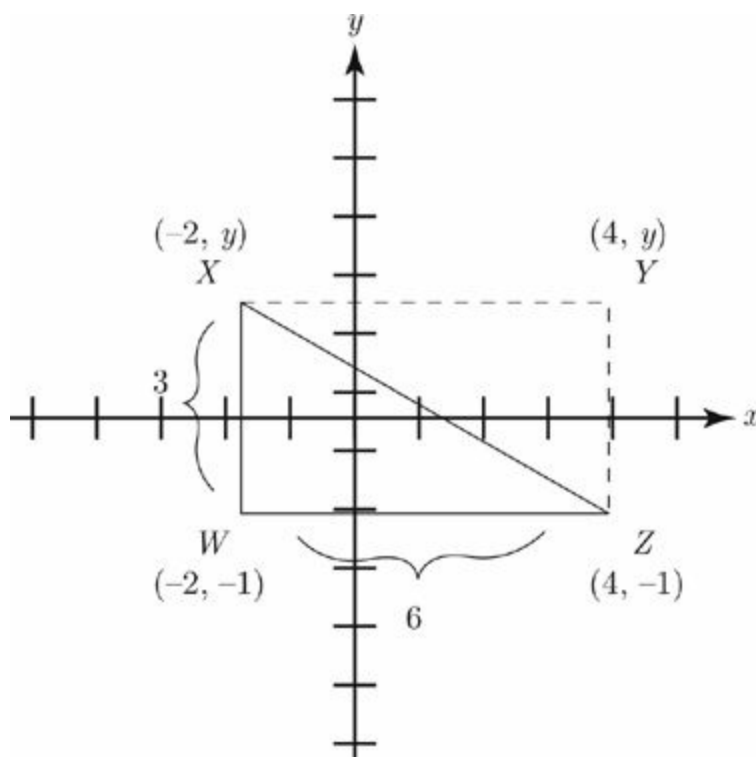
9. 1,625

Set up a proportion:  $\frac{1 \text{ hour}}{500 \text{ gallons}} = \frac{3.25 \text{ hours}}{x \text{ gallons}}$ . Cross multiply to find that  $x = 500 \times 3.25 = 1,625$  gallons.

10. B

Plug In the answers, starting with the middle choice. If 120 dogs were sold in March, then 60 cats were sold that month. In April, 240 dogs were sold, along with 180 cats. The total number of dogs and cats sold during those two months is 600, which is too large, so eliminate choices (C), (D), and (E). Try choice (B). If there were 100 dogs sold in March, then 50 cats were sold; in April, 200 dogs were sold along with 150 cats. The correct answer is (B) because  $100 + 50 + 200 + 150 = 500$ .

11. C



Notice that the length of WZ is  $4 - (-2) = 6$ . If area is  $18 = 6 \times w$ , then  $w$  is equal to 3. The length, therefore, must be 6. Use this to find the area.  $18 = l \times 3$ , and the length is 6. Now you have a right triangle with legs of 3 and 6. Use the Pythagorean theorem:  $3^2 + 6^2 = c^2$ , or  $9 + 36 = c^2$ . So,  $c = \sqrt{45} = \sqrt{9 \times 5} = 3\sqrt{5}$ .

12. E

Order matters in this problem, so remember you do not divide; you multiply! For the first integer, you have 5 options. For the second, you have 4. For the third, you have 3, which is answer choice (E).

13. D

The percent increase in the CEO's pay was  $\frac{\$50 - \$5}{5} \times 100\% = 900$  percent. The percent decrease in the factory workers' pay was  $\frac{\$20 - \$10}{20} \times 100\% = 50$  percent. To find what percent greater 900 percent is than 50 percent, do the following:

$$\frac{900\% - 50\%}{50\%} \times 100\% = 1,700 \text{ percent, or choice (D).}$$

14. D

Divide the \$9.4 million in private donations received by child safety organizations in September 1989 by the 38 organizations operating at the time. The amount is approximately \$250,000.

15. C

From the line graph, you see that homeless aid groups took in about \$300 million in private donations, and animal rights groups about \$225 million. The ratio of \$300 million to \$225 million is 4 to 3.

16. E

In September 1989, \$9.4 million was privately donated to child safety, and in October 1989, \$9.9 million was privately donated. Percent change is  $\frac{\text{change}}{\text{original}} \times 100$ . The change is equal to  $9.9 - 9.4 = 0.5$  (the difference between private donations in September 1989 and October 1989). The original is equal to 9.4 (the amount of private donations in September 1989). The percent change is  $\frac{0.5}{9.4} \times 100$ , or approximately 5 percent. This is lower than the percent change in any of the other categories.

17. D

This is a pattern problem. The pattern has five digits: 06539. Divide 34 by 5, which gives you a remainder of 4. So the 34th digit will be the fourth in the pattern, which is 3.

18.  $\frac{48}{7}$

First, solve for  $x$  using the equation  $\frac{7y}{2x} = 7$ . Cross-multiply to find that  $7y = 14x$ . Dividing both sides by 14 yields  $\frac{1}{2}y = x$ . Substitute this expression into the first equation to get  $3(\frac{1}{2}y) + 2y = 24$ . Combine the like terms to get  $\frac{7}{2}y = 24$ ; multiply both sides by  $\frac{2}{7}$  to find  $y = \frac{48}{7}$ .

19. C

Because the question asks you to find the greatest value of  $x$ , make the average the largest it can be; in this case, make it 11. You have to use the number 11 because the question tells you the average is between 6 and 12 and that  $x$  is an integer. Now draw yourself an average pie. If you multiply the number of things (4) and the average (11), the total will be 44. Notice that choice (E) is 44, but it's a partial answer. To find  $x$ , solve  $6 + 8 + 10 + x = 44$ ;  $x = 20$ , or choice (C).

20. A

Plug In! To find the area of quadrilateral  $ABDE$ , find the area of right  $\triangle ABC$  and subtract the area of right  $\triangle EDC$ . Make  $a = 4$  and  $b = 2$ . Because  $AB = BC$ , we know that this triangle has a height and base that are both equal to 2. The area of  $ABC$  is  $4 \times 4 \times \frac{1}{2} = 8$ . The area of  $EDC$  is  $2 \times 2 \times \frac{1}{2} = 2$ . The area of  $ABDE$  is  $8 - 2 = 6$ . Plug in for  $a$  and  $b$  and find answer choice A is the only one that works. To find the area of quadrilateral  $ABDE$ , find the area of right  $\triangle ABC$  and subtract the area of right  $\triangle EDC$ . Both the base and the height of  $\triangle ABC$  are  $a$ , so the area equals  $\frac{1}{2} \times a \times a$ , or  $\frac{a^2}{2}$ . Both the base and the height of  $\triangle EDC$  are  $b$ , so the area equals  $\frac{1}{2} \times b \times b$ , or  $\frac{b^2}{2}$ . Therefore, the area of quadrilateral  $ABDE$  is  $\frac{a^2}{2} - \frac{b^2}{2}$ .



## Section 6

### 1. original and outlandish

Try working with the second blank first. The clues are that the fashions were “considered daring” and then “imitated.” Starting with the second blank, the sentence suggests that the fashions have changed from what they once were—in other words, daring. *Outlandish* is a good synonym for daring and it makes sense that, in the first blank, the fashions were *original* and then lost their impact because of excess imitation.

### 2. diverge

Take note of the time trigger “... at one time inseparable ... now,” which indicates that the combined roles in Middle Eastern music are now not inseparable. You need a word that means divide or separate. *Divulge* starts with the proper root, but its meaning is way off. Meanwhile, neither *retreat* nor *retrench* means divide, while *fuse* is the opposite of what you want. *Diverge* is the best answer.

### 3. rebuked, perfidy, and expiate

Start with the second blank, which must mean something close to *an act of treachery*. *Perfidy* means this. Since his contemporaries believed Kazan had committed treachery, they would have “harshly criticized” him, so the first blank means rebuked. For the last blank, he was able to achieve *atonement*, which is what *expiate* means.

### 4. soporific

The sentence requires you to figure out the effect that “tranquilizers usually have,” and this is provided by the clue in the later part of the sentence, when we read that the “abuse of these drugs results in a failure to induce the much-desired sleep.” You can infer that the usual effect of tranquilizers is to produce sleep. *Soporific*, which means sleep-inducing, is the correct answer choice. While *sedulous* might remind you of “sedative,” it actually means hard-working.

### 5. preternatural, preclude, and consonant

The clue for the first blank is “are rejected by modern science in its attempts to find secular insights.” Otherworldly interpretations contrast the secular, and the best choice for the first blank is *preternatural*. There would be a paradox only if scientists could hold non-secular beliefs. Therefore, a good word for the second blank is *prevent*, and a good phrase for the last blank would be *in agreement*.

*Preclude* is synonymous with *prevent*, and *consonant* is synonymous with *in agreement*, making these the best answer choices.

## 6. conformity and eccentricity

Try working with the second blank first. The clue is “none of the family members were fearful ... of appearing or acting differently from other people.” Therefore, find a word for the second blank that means uniqueness. *Eccentricity* fits the bill. Considering the clue, “The Johnson’s were not known for their,” the two blanks must be opposites. Eliminate *candor* and *vulgarity* based on the clue and the word choice for the second blank, and choose *conformity*.

## 7. E

In the last paragraph, the author discusses the difficulties inherent in measuring intergalactic distances. He notes that scientists use a standard candle in combination with the inverse square law to measure those distances.

## 8. C

The passage states in the third paragraph that brighter objects are closer than dim objects, so eliminate choice (A). The passage never specifies what scientists know about the age of astronomical objects, so eliminate choice (B). The first paragraph says that, according to Hubble’s law, “objects farther away from Earth are receding faster than those closer.” This means that the farther object will travel faster, so choice (C) is correct.

## 9. B

According to the last line in the paragraph, “By the inverse square law, galaxy B is ten times farther away than galaxy A, assuming, of course, that distance is the only factor affecting brightness.” Therefore, if interstellar dust affects the brightness of an object, the brightness of the object is affected, and the distance scientists measure may be inaccurate.

## 10. C

According to the passage, “By the inverse square law, galaxy B is ten times farther away than galaxy A, assuming, of course, that distance is the only factor affecting brightness.” Therefore, assuming that all other factors affecting brightness can be known, we can conclude that the brighter of the supernovas will be closer to Earth.

**11. B**

“Prozac lag” is a phenomenon for which there is currently no explanation, but neurogenesis may offer a solution. Answer (A) contradicts this. The passage offers “Prozac lag” as supporting evidence of a new theory, not disproving an old one, as choice (C) suggests, or disproving a new one, as choice (D) states. Answer (E) goes too far by discussing “unforeseen effects.” Choice (B) is the best option.

**12. However, patients suffering from depression only begin to experience mood elevation weeks after beginning treatment.**

The second paragraph has five sentences, so this question has five answer choices. For an “unexpected observation,” a good place to start would be to check the trigger words. The fourth sentence starts with the word “however.” While the effects should occur immediately, these don’t occur until weeks after starting treatment. The answer is the fourth sentence.

**13. edifying and didactic**

The blank describes Socrates’s conversations. The clue is “Socrates’s teachings have survived and continue to enlighten seekers of wisdom,” so the blank must mean instructional. *Edifying* and *didactic* are the closest in meaning. *Tedious*, *grating*, *inspiring*, and *rousing* could all be used to describe Socrates’s conversations, but they do not match the clue.

**14. satiate and allay**

You would expect “the colossal meal” to fill someone up, but the sentence says that “failed to ... her voracious appetite.” Thus, she was not full, and the meal failed to satisfy. *Satiate* and *allay* are the best match. *Cadge* and *mendicate* mean the meal begged her hunger. *Exacerbate* and *provoke* go in the wrong direction.

**15. iridescent and pavonine**

The clue for this sentence is “the lovely rainbows they produce,” which suggests that the blank should be filled by a word meaning colorful. Both *iridescent* and *pavonine* mean exactly that. Even if you don’t agree that the blank necessarily refers to rainbows of color, the missing word does have to agree with *beautiful* due to the trigger and, and none of the other four options does: *Anodyne* means eliminating physical pain, *monocoque* means constructed in one piece, *parietal* mean college-related, and *saturnine* means gloomy.

**16. cauterized and inured**

The clue for this sentence is *callous*, so the blank must mean “used to,” or “didn’t notice.” Choices (B), *cauterized*, and (E), *inured*, mean this. (F) is incorrect because he didn’t notice the violence more, but rather noticed it less.

17. D

The conclusion of the argument is that the old formula for Megapower contained natural kiwi extract, while the new formula does not. The evidence is that Tasmania suffered a decrease in its kiwi exports. The assumption is that Megapower is not getting kiwi fruit from Tasmania. Choice (D) strengthens the argument by pointing out that kiwi imports have fallen in the country that produces Megapower, which would reinforce that assumption that the manufacturer is not getting kiwis from Tasmania. Choice (A) would weaken the argument by providing a potential alternate source for kiwi fruit. Choice (C) weakens the argument by providing evidence that the manufacturer of Megapower could be getting kiwi fruit from another source. Choice (B) and Choice (E) are not relevant to the conclusion.

18. C

While the word *promulgated* can take on the meanings given in answer choices (A), (B), or (C), within the context of the sentence it is clear that Courbet is taking a stand on what he believes art should be. Therefore, answer choice (C) is closest to the correct meaning.

19. **“The argument has been made that the painting struck a blow for the independence of the artist, and that since Courbet’s work, artists have felt freed from the societal demands placed upon their work.”**

While the rest of the passage enumerates Courbet’s ideas on painting, only this sentence points to the effect that Courbet’s work may have had on other artists when it states that “since Courbet’s work artists have felt freed from the societal demands placed on their work.”

20. A

According to the passage, Courbet broke with convention by “striving to do something strikingly original.” Only answer choice (A) provides that sense of defying a convention to do something original.