

Answers:

1. To find the probability that two independent events will occur, one after the other, multiply the probability of the first event by the probability of the second event.

Probability of a non-nickel on **first** pick = $(5 \text{ pennies} + 4 \text{ dimes}) / 15 \text{ coins} = 3/5$

Probability of a non-nickel on **second** pick = $(8 \text{ non-nickel coins}) / 14 \text{ coins} = 4/7$

Notice that for the second pick both the non-nickel pool and the total coin pool diminished by one coin after a non-nickel was selected on the first pick.

Total probability = $3/5 \times 4/7 = 12/35$. The correct answer is B.

2. For an overlapping set question with two sets, we can use a double-set matrix to organize the information and solve. The information given to us in the question is shown in the matrix in **boldface**.

The non-boldface values were filled in by solving simple equations that involve a value in one of the "total" cells. For example, since we know that there are 17,000 total residents and that 9,350 (55 percent) own a motorcycle, then we can determine that $17,000 - 9,350 = 7,650$ residents do not own a motorcycle.

	Car	No Car	Totals
Motorcycle			9,350
No Motorcycle	3,400	4,250	7,650
Totals	11,050		17,000

The question asks for the number of residents who own a car but not a motorcycle. Looking in the table, we see that this is 3,400. The correct answer is B.

3. First consider an easier expression such as $10^{25} - 560$. Doing the computation yields 99,440, which has 2 9's followed by 440.

From this, we can extrapolate that $10^{25} - 560$ will have a string of 22 9's followed by 440.

Now simply apply your divisibility rules:

You might want to skip 11 first because there is no straightforward rule for divisibility by 11. You can always return to this if necessary. [One complex way to test divisibility by 11 is to assign opposite signs to adjacent digits and then to add them to see if they add up to 0. For example, we know that 121 is divisible by 11 because $-1 + 2 - 1$ equals zero. In our case, the twenty-two 9s, when assigned opposite signs, will add up to zero, and so will the digits of 440, since $+4 - 4 + 0$ equals zero.]

If the last three digits of the number are divisible by 8, the number is divisible by 8. Since 440 is divisible by 8, the entire expression is divisible by 8.

If the last two digits of the number are divisible by 4, the number is divisible by 4. Since 40 is divisible by 4, the entire expression is divisible by 4.

If a number ends in 0 or 5, it is divisible by 5. Since the expression ends in 0, it is divisible by 5.

For a number to be divisible by three, the sum of the digits must be divisible by three. The sum of the 22 9's will be divisible by three but when you add the sum of the last three digits, 8 ($4 + 4 + 0$), the result will not be divisible by 3. Thus, the expression will NOT be divisible by 3.

The correct answer is E.

4. The question is asking us for the *weighted* average of the set of men and the set of women. To find the weighted average of two or more sets, you need to know the average of each set and the ratio of the number of members in each set. Since we are told the average of each set, this question is really asking for the ratio of the number of members in each set.

(1) SUFFICIENT: This tells us that there are twice as many men as women. If m represents the number of men and w represents the number of women, this statement tells us that $m = 2f$.

To find the weighted average, we can sum the total weight of all the men and the total weight of all the women, and divide by the total number of people. We have an equation as follows:

$$\text{Average} = \frac{m(150) + f(120)}{m + f}$$

Since this statement tells us that $m = 2f$, we can substitute for m in the average equation as follows:

$$\text{Average} = \frac{m(150) + f(120)}{49 + 49} = \frac{2f(150) + f(120)}{2f + f} = \frac{430f}{3f} = 140$$

Notice that we don't need the actual number of men and women in each set but just the ratio of the quantities of men to women.

(2) INSUFFICIENT: This tells us that there are a total of 120 people in the room but we have no idea how many men and women. This gives us no indication of how to weight the averages.

The correct answer is A.

5. The set $R_n = R_{n-1} + 3$ describes an evenly spaced set: each value is three more than the previous. For example the set could be 3, 6, 9, 12 . . .

For any evenly spaced set, the mean of the set is always equal to the median. A set of consecutive integers is an example of an evenly spaced set. If we find the mean of this set, we will be able to find the median because they are the same.

(1) INSUFFICIENT: This does not give us any information about the value of the mean. The only other way to find the median of a set is to know every term of the set.

(2) SUFFICIENT: The mean must be the median of the set since this is an evenly spaced set. This statement tells us that mean is 36. Therefore, the median must be 36.

The correct answer is B.

6. The equation in the question has two solutions:

$$x^2 + 3x - 10 = 0 \longrightarrow (x + 5)(x - 2) = 0 \longrightarrow x = -5 \text{ and } x = 2$$

$$\text{In (A), } x^2 - 25 = 0 \longrightarrow x^2 = 25 \longrightarrow x = \pm 5$$

$$\text{In (B), } |x + 5| = 0 \longrightarrow x = -5$$

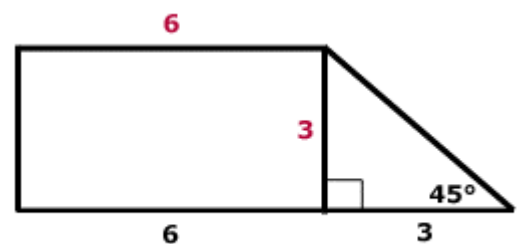
$$\text{In (C), } x^2 + x - 2 = 0 \longrightarrow (x + 2)(x - 1) = 0 \longrightarrow x = -2 \text{ and } x = 1$$

$$\text{In (D), } x^2 - 2x = 0 \longrightarrow x(x - 2) = 0 \longrightarrow x = 0 \text{ and } x = 2$$

$$\text{In (E), } x^2 + 6x + 5 = 0 \longrightarrow (x + 5)(x + 1) = 0 \longrightarrow x = -5, \text{ and } x = -1$$

Since we are looking for an equation that does NOT share a solution in common with the equation in the question, the correct answer is C.

7. Since the triangle is a right isosceles triangle, the other leg of the triangle (the height of the trapezoid) must be 3. The top base of the trapezoid must be 6 since it is the opposite side of a rectangle.



The area of a trapezoid = $\frac{1}{2}$ (base 1 + base 2) \times (height)

$$= \frac{1}{2} (9 + 6) (3) = 22.5$$

The area can also be found here by breaking up the figure into a rectangle (area of $6 \times 3 = 18$) and a triangle (area of $\frac{1}{2} \times 3 \times 3 = 4.5$) and adding these two areas. The correct answer is A.

8. For fraction p/q to be a terminating decimal, the numerator must be an integer and the denominator must be an integer that can be expressed in the form of $2^x 5^y$ where x and y are nonnegative integers. (Any integer divided by a power of 2 or 5 will result in a terminating decimal.)

The numerator p , $2^a 3^b$, is definitely an integer since a and b are defined as integers in the question.

The denominator q , $2^c 3^d 5^e$, could be rewritten in the form of $2^x 5^y$ if we could somehow eliminate the expression 3^d . This could happen if the power of 3 in the numerator (b) is greater than the power of 3 in the denominator (d), thereby canceling out the expression 3^d . Thus, we could rephrase this question as, is $b > d$?

(1) INSUFFICIENT. This does not answer the rephrased question "is $b > d$ "? The denominator q is not in the form of $2^x 5^y$ so we cannot determine whether or not p/q will be a terminating decimal.

(2) SUFFICIENT. This answers the question "is $b > d$?"

The correct answer is B.

9. To determine the average speed for the trip from Townsend to Smallville and back again, we need to know the average speed in each direction. Because the distance in each direction is the same, if we have the average speed in each direction we will be able to find the average speed of the entire trip by taking the total distance and dividing it by the total time.

(1) SUFFICIENT: This allows us to figure out the average speed for the return trip. If the return time was $3/2$ the outgoing time, the

return speed must have been $\frac{2}{3}$ that of the outgoing. Whenever the distance is fixed, the ratio of the times will be the *inverse* of the ratio of the speeds.

We can see this by looking at an example. Let's say the distance between the two towns was 80 miles.

	Going	Returning
R	40	
T		
D	80	80

We can calculate the "going" time as 2 hours. Since, the return trip took 50% longer, the "returning time" is 3 hours. Thus, the average rate for the return trip is Distance/Time or $80/3$ miles per hour.

	Going	Returning
R	40	$80/3$
T	2	3
D	80	80

We can use this table to calculate the average speed for the entire trip: take the total distance, 160, and divide by the total time, 5.

	Going	Returning	TOTAL
R	40	$80/3$	---
T	2	3	5
D	80	80	160

This results in an average speed of 32 miles per hour.

It does not matter that we chose a random distance of 80; we would be able to solve using any distance or even using a variable x as the distance. The times would adjust accordingly based on the distance we used and the same average speed of 32 would result.

(2) INSUFFICIENT: If all we know is the distance from Riverdale to Smallville, we will be able to find the time traveled on the way there but we will have no indication of how fast the car traveled on the way back and therefore no way of knowing what the average overall speed was. The correct answer is A.

10. To count all of the integers between 41 and 101, inclusive, we take $101 - 41 + 1 = 61$. (Don't forget to add one back in when counting sets in this way.)

Since every other number in a consecutive set is even, half of these numbers must be even.

Since the set begins and ends on an odd number, there must be one more odd number than even. Therefore, there are 31 odd and 30 even numbers.

Thus, the correct answer is (C).

11. Using the anagram method to solve this combinations question, we assign 10 letters to the 10 teams in the first row. In the second row, three of the teams are assigned numbers (1,2,3) representing gold, silver and bronze medals. The remaining seven teams get an N, to signify that they do NOT receive a medal.

A	B	C	D	E	F	G	H	I	J
1	2	3	N	N	N	N	N	N	N

The above anagram represents ONE possible way to assign the medals. The number of different possible ways to assign the three medals to three of the 10 competing teams is equal to the number of possible anagrams (arrangements of letters) that can be formed from the word 123NNNNNNN.

$$10!$$

Since there are 10 letters and 7 repeats, this equals $\frac{10!}{7!} = 10 \times 9 \times 8$.

12. ACME accumulated an inventory of $4x$ brooms during its four-month production period. If it sold $0.5x$ brooms on March 1st, then it paid storage for $3.5x$ brooms in March, or $\$3.5x$. Again, if ACME sold $0.5x$ brooms on April 1st, it paid storage for $3x$ brooms in April, or $\$3x$. The first row of the table below shows the amount of money spent per month on storage. Notice that since ACME liquidated its stock on October 1st, it paid zero dollars for storage in October.

MAR	APR	MAY	JUN	JUL	AUG	SEP
\$3.5x	\$3x	\$2.5x	\$2x	\$1.5x	\$1x	\$0.5x

If we add up these costs, we see that ACME paid \$14x for storage.
The correct answer is E.

13. The question tells us that $p < q$ and $p < r$ and then asks whether the product pqr is less than p .

Statement (1) INSUFFICIENT: We learn from this statement that either p or q is negative, but since we know from the question that $p < q$, p must be negative. To determine whether $pqr < p$, let's test values for p , q , and r . Our test values must meet only 2 conditions: p must be negative and q must be positive.

p	q	r	pqr	Is $pqr < p$?
-2	5	10	-100	YES
-2	5	-10	100	NO

Statement (2) INSUFFICIENT: We learn from this statement that either p or r is negative, but since we know from the question that $p < r$, p must be negative. To determine whether $pqr < p$, let's test values for p , q , and r . Our test values must meet only 2 conditions: p must be negative and r must be positive.

p	q	r	pqr	Is $pqr < p$?
-2	-10	5	100	NO
-2	10	5	-100	YES

If we look at both statements together, we know that p is negative and that both q and r are positive. To determine whether $pqr < p$, let's test values for p , q , and r . Our test values must meet 3 conditions: p must be negative, q must be positive, and r must be positive.

p	q	r	pqr	Is $pqr < p$?
-2	10	5	-100	YES
-2	7	4	-56	YES

At first glance, it may appear that we will always get a "YES" answer. But don't forget to test out fractional (decimal) values as well. The problem never specifies that p , q , and r must be integers.

p	q	r	pqr	Is $pqr < p$?
-2	.3	.4	-.24	NO

Even with both statements, we cannot answer the question definitively. The correct answer is E.

14. We can rephrase this question as "are both a and b odd?" since that is the only way that the product of a and b can be odd.

(1) INSUFFICIENT: This tells us that a is prime, since prime numbers have only two factors (1 and the number itself). However, this is insufficient to determine whether a is odd, since there is one even prime number: 2.

Moreover, this statement tells us nothing about b .

(2) INSUFFICIENT: This tells us that b must be odd. However, we know nothing about a .

Together, the statements are insufficient because while b must be odd, we do not know whether a is odd. The correct answer is E.

15. Since we know the value of $\#-7\# = 3$, we can plug $p = -7$ into our formula:

$$\begin{aligned}
 (-7)^3a + (-7)b - 1 &= 3 \\
 -343a - 7b &= 3 \\
 -343a - 7b &= 4
 \end{aligned}$$

We are asked to solve for #7#. If we plug 7 into our formula, we get:

$$(7)^3a + (7)b - 1 = ?$$

$$343a + (7)b - 1 = ?$$

To figure this out, we would need to know the value of $343a + 7b$.

From the first equation we know that $-343a - 7b = 4$. By multiplying both sides by negative one, we see that $343a + 7b = -4$.

$$343a + 7b - 1 = ?$$

$$-4 - 1 = -5$$

The correct answer is E.

16. For an overlapping set problem we can use a double-set matrix to organize our information and solve. Let's call P the number of people at the convention. The **boldface** entries in the matrix below were given in the question. For example, we are told that one sixth of the attendees are female students, so we put a value of $P/6$ in the female students cell.

	FEMALE	NOT FEMALE	TOTALS
STUDENTS	$P/6$	$P/6$	$P/3$
NON STUDENTS	$P/2$	150	$2P/3$
TOTALS	$2P/3$	$P/3$	P

The non-boldfaced entries can be derived using simple equations that involve the numbers in one of the "total" cells. Let's look at the "Female" column as an example. Since we know the number of female student ($P/6$) and we know the total number of females ($2P/3$), we can set up an equation to find the value of female non-students:

$$P/6 + \text{Female Non Students} = 2P/3.$$

Solving this equation yields: $\text{Female Non Students} = 2P/3 - P/6 = P/2$.

By solving the equation derived from the "NOT FEMALE" column, we can determine a value for P .

$$\frac{P}{6} + 150 = \frac{P}{3} \longrightarrow P + 900 = 2P \longrightarrow P = 900$$

The correct answer is E.

17. The inequality $-3x < 6$ can be simplified by dividing both sides by -3 .

$$\frac{-3x}{-3} > \frac{6}{-3} \longrightarrow x > -2$$

Notice that when you multiply or divide both sides of an inequality by a negative number, you must change the direction of the inequality symbol. The correct answer is D.

18. To prove that a quadrilateral is a square, you must prove that it is both a rhombus (all sides are equal) and a rectangle (all angles are equal).

(1) INSUFFICIENT: Not all parallelograms are squares (however all squares are parallelograms).

(2) INSUFFICIENT: If a quadrilateral has diagonals that are perpendicular bisectors of one another, that quadrilateral is a rhombus. Not all rhombuses are squares (however all squares are rhombuses).

If we look at the two statements together, they are still insufficient. Statement (2) tells us that ABCD is a rhombus, so statement one adds no more information (all rhombuses are parallelograms). To prove that a rhombus is a square, you need to know that one of its angles is a right angle or that its diagonals are equal (i.e. that it is also a rectangle).

The correct answer is E.

19. We can rephrase this question to "What is the value of a ?" since if we knew a , we could easily find the value of $a - 2$.

(1) INSUFFICIENT: If we simplify this inequality, we get $a > 3$, which gives us a range of values for a , not one specific value.

(2) SUFFICIENT: If we solve this equation for a , we find that $a = 4$.

Therefore, the correct answer is (B).

20. This question is best solved by approximating each of the elements.

Let's refer to 4.896 as "*less than 5*".

The first fraction in the denominator can be rewritten as follows:

$$\frac{1}{.07} = \frac{\frac{1}{7}}{\frac{100}{7}} = \frac{100}{7}$$

This can be approximated as "*more than 14*," since $14 \times 7 = 98$ (i.e., 7 goes into 100 slightly more than 14 times). The second fraction in the denominator can be rewritten as follows:

$$\frac{1}{.16} = \frac{\frac{1}{16}}{\frac{100}{16}} = \frac{100}{16}$$

This can be approximated as "*more than 6*" since $16 \times 6 = 96$ (i.e., 16 goes into 100 slightly more than 6 times).

"*More than 14*" + "*more than 6*" gives us "*more than 20*" in the denominator.

less than 5

Thus we have: $\frac{\text{less than 5}}{\text{more than 20}}$

The value of the fraction $5/20 = .25$

Since the above fraction diminishes the numerator slightly (which has the effect of decreasing the fraction) and increases the denominator slightly (which also has the effect of decreasing the fraction), the value of the fraction should be slightly smaller than .25. The only possible answer choice is A.

21. To simplify a radical in the denominator of a fraction, you must multiply the denominator by something that will cause the radical to disappear. You must also multiply the numerator by this same value so as not to change the value of the fraction (In effect by multiplying the numerator and the denominator by the same value, you are multiplying the entire fraction by 1).

What will cause the radical in denominator to disappear? Multiply the denominator $2 + \sqrt{3}$ by its complement, $2 - \sqrt{3}$, as follows:

$$\frac{3}{2 + \sqrt{3}} \left(\frac{2 - \sqrt{3}}{2 - \sqrt{3}} \right) = \frac{6 - 3\sqrt{3}}{4 - 3} = 6 - 3\sqrt{3}$$

The correct answer is B.

22. We can solve this problem as a VIC (Variable In Answer Choice) and plug in values for the two variables, x and y . Let's say $x = 2$ and $y = 3$.

Machine A can complete one job in 2 hours. Thus, the rate of Machine A is $1/2$.

Machine B can complete one job in 3 hours. Thus, the rate of Machine B is $1/3$.

The combined rate for Machine A and Machine B working together is: $1/2 + 1/3 = 5/6$.

Using the equation $(\text{Rate})(\text{Time}) = \text{Work}$, we can plug $\frac{5}{6}$ in for the combined rate, plug 1 in for the total work (since they work together to complete 1 job), and calculate the total time as $\frac{6}{5}$ hours.

The question asks us what fraction of the job machine B will NOT have to complete because of A's help. In other words we need to know what portion of the job machine A alone completes in that $\frac{6}{5}$ hours.

A's rate is $\frac{1}{2}$, and it spends $\frac{6}{5}$ hours working. By plugging these into the $RT=W$ formula, we calculate that, A completes $(\frac{1}{2})(\frac{6}{5}) = \frac{3}{5}$ of the job. Thus, machine B is saved from having to complete $\frac{3}{5}$ of the job.

If we plug our values of $x = 2$ and $y = 3$ into the answer choices, we see that only answer choice E yields the correct value of $\frac{3}{5}$.

23. The procedure for finding the standard deviation for a set is as follows:

- 1) Find the difference between each term in the set and the mean of the set.
- 2) Average the squared "differences."
- 3) Take the square root of that average.

Notice that the standard deviation hinges on step 1: finding **the difference between each term in the set and the mean of the set**. Once this is done, the remaining steps are just calculations based on these "differences."

Thus, we can rephrase the question as follows: "What is the difference between each term in the set and the mean of the set?"

(1) SUFFICIENT: From the question, we know that Q is a set of consecutive integers. Statement 1 tells us that there are 21 terms in the set. Since, in any consecutive set with an odd number of terms, the middle value is the mean of the set, we can represent the set as 10 terms on either side of the middle term x :

$[x - 10, x - 9, x - 8, x - 7, x - 6, x - 5, x - 4, x - 3, x - 2, x - 1, x, x + 1, x + 2, x + 3, x + 4, x + 5, x + 6, x + 7, x + 8, x + 9, x + 10]$

Notice that the difference between the mean (x) and the first term in the set ($x - 10$) is 10. The difference between the mean (x) and the second term in the set ($x - 9$) is 9. As you can see, we can actually find the difference between each term in the set and the mean of the set without knowing the specific value of each term in the set!

(The only reason we are able to do this is because we know that the set abides by a specified consecutive pattern and because we are told the number of terms in this set.) Since we are able to find the "differences," we can use these to calculate the standard deviation of the set. Although you do not need to do this, here is the actual calculation:

Sum of the squared differences:

$$10^2 + 9^2 + 8^2 + 7^2 + 6^2 + 5^2 + 4^2 + 3^2 + 2^2 + 1^2 + 0^2 + (-1)^2 + (-2)^2 + (-3)^2 + (-4)^2 + (-5)^2 + (-6)^2 + (-7)^2 + (-8)^2 + (-9)^2 + (-10)^2 = 770$$

$$\text{Average of the sum of the squared differences: } \frac{770}{21} = 36 \frac{2}{3}$$

The square root of this average is the standard deviation: $\sqrt{36 \frac{2}{3}} \approx 6.06$

(2) NOT SUFFICIENT: Since the set is consecutive, we know that the median is equal to the mean. Thus, we know that the mean is 20. However, we do not know how big the set is so we cannot identify the difference between each term and the mean.

Therefore, the correct answer is A.

24. For a fraction question that makes no reference to specific values, it is best to assign a smart number as the "whole value" in the problem. In this case we'll use 30 since that is the least common denominator of all the fractions mentioned in the problem.

If there are 30 students in the class, $\frac{3}{5}$ or 18, left for the field trip. This means that 12 students were left behind.

$\frac{1}{3}$ of the 12 students who stayed behind, or 4 students, didn't want to go on the field trip.

This means that 8 of the 12 who stayed behind *did* want to go on the field trip.

When the second vehicle was located, half of these 8 students or 4, were able to join the other 18 who had left already.

That means that 22 of the 30 students ended up going on the trip. $\frac{22}{30}$ reduces to $\frac{11}{15}$ so the correct answer is C.

25. One of the cylinders has a height of 6 and a base circumference of 10, the other has a height of 10 and a base circumference of 6.

The cylinder with a height of 6 and a base circumference of 10 has a radius of $(5/\pi)$. Its volume is equal to $\pi r^2 h$, or $\pi(5/\pi)^2(6)$ or $150/\pi$.

The cylinder with a height of 10 and a base circumference of 6, however, has a radius of $(3/\pi)$. Its volume is equal to $\pi r^2 h$, or $\pi(3/\pi)^2(10)$ or $90/\pi$.

We can see that the volume of the cylinder with a height of 6 is $60/\pi$ inches greater than that of the cylinder with a height of 10. It makes sense in this case that the cylinder with the greater radius will have the greater volume since the radius is squared in the volume formula. The correct answer is B.

26. To find how long it takes Bob and Richard to paint the room together, we need to know their respective individual rates. Individual rates can be added together to give the collective rate, and the collective rate can be used to calculate how long it takes to complete the job together.

Since we are given Bob's individual rate in the question, all we need is Richard's individual rate.

(1) SUFFICIENT: This provides us with Richard's individual rate.

(2) SUFFICIENT: This gives us the ratio of Richard's rate to Bob's rate, 3:2 ($R = 1.5B$ or $3R = 2B$). Since we know Bob's rate we can use it to find Richard's.

The correct answer is D.

27. First rewrite the expression in the question using only prime bases (4 is not prime), as follows: $2^a 2^{2b}$.

(1) SUFFICIENT: We can substitute $-2b$ for a into the expression in the question. What is the value of $(2^{-2b})(2^{2b})$?

This can be simplified to $2^{-2b+2b} = 2^0 = 1$.

(2) INSUFFICIENT: We have no information about the value of a .

The correct answer is A.

28. If we multiply out the expression, we see that the question is asking whether $xy + xz$ is positive.

(1) INSUFFICIENT: We learn from this statement that x and y have the same sign. They are either both positive or both negative. (To prove this try choosing values with opposite signs for x and y , for example 3 and -4). This assures us that $xy > 0$, however since we know nothing about the sign of z , we can't answer the question.

(2) INSUFFICIENT: We learn from this statement that y and z have the same sign. They are either both positive or both negative. This assures us that $xz > 0$. However, we know nothing about the sign of x , so we can't answer the question.

If we combine both statements, we know that x , y and z must all have the same sign. This means that $xy + xz$ must be positive. The correct answer is C.

29. 37.5% can be written in fraction form as $\frac{3}{8}$.

2.4 in fraction form is $\frac{24}{10}$.

$$\frac{3}{8} \times \frac{24}{10} = \frac{3}{1} \times \frac{3}{10} = \frac{9}{10} = 0.9$$

Notice that the 8 in the first denominator and the 24 in the second numerator changed to a 1 and 3 respectively. The correct answer is B.

30. The mean or average of a set of consecutive integers can be found by taking the average of the first and last members of the set.

$$\text{Mean} = \frac{(-5) + (-1)}{2} = \frac{-6}{2} = -3$$

The correct answer is B.

31. If n divided by 7 has a remainder of 2, n can be expressed as $n = 7x + 2$, where x is an integer.

This means that $3n = 3(7x) + 6$. The expression $3(7x) + 6$ describes a number that has a remainder of 6 when divided by 7. (Since 7 will divide evenly into $3(7x)$, we will be left with a remainder of 6.)

Alternatively, you could plug in a number to solve this question. The number 9 is a good example of a number that has a remainder of 2 when divided by 7. Three times that number, or 27, would have a remainder of 6 when divided by 7. For remainder questions, you can always count on a single plugged number to represent all numbers that share its divisibility properties.

The correct answer is E.

32. To answer this question, we need to know the value of x/y . We can easily verify this by plugging in values of 3 and 4 for x and y , respectively. To answer the question "What percent is 3 of 4," we would simply take $3/4$ and multiply it by 100.

(1) SUFFICIENT: This allows us to solve for x/y .

(2) INSUFFICIENT: This cannot be solved for x/y since x and y do not have a constant ratio.

Therefore, the correct answer is A.

33. For pq to be positive, p and q must have the same sign.

(1) INSUFFICIENT: This statement tells us nothing about the sign of q .

(2) INSUFFICIENT: This statement tells us nothing about the sign of p .

Together the statements are sufficient. If p and q are both negative, they have the same sign and their product must be positive. The correct answer is C.

34. Let's use the Rate/Time/Distance chart below to organize the information in this problem. Since John left four hours later than Peter, his time can be represented as $t - 4$.

	Peter	John
Rate	10	15
Time	t	$t - 4$
Distance	$10t$	$15(t - 4)$

When Peter and John meet, their distances will be equal: $10t = 15(t - 4)$ or $t = 12$. If Peter will have been cycling 12 hours when they meet, they will meet at 10:00 p.m. The correct answer is E.

35. First rewrite the equation so that both sides have the base 3 raised to a power.

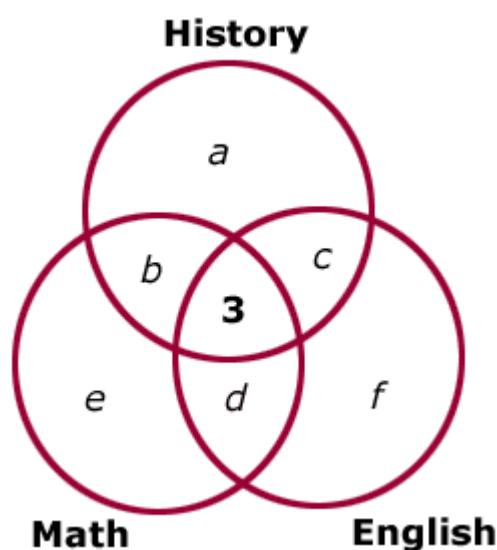
To do this, you need to recognize that $(1/9) = 3^{-2}$.

Thus, we can rewrite the given equation as follows: $3^{2n} = 3^{-2(n+2)}$.

This means that $2n = -2(n + 2)$. Solving this equation yields $n = -1$. The correct answer is B.

36. For an overlapping set problem with three subsets, we can use a Venn diagram to solve.

Each circle represents the number of students enrolled in the History, English and Math classes, respectively. Notice that each circle is subdivided into different groups of students. Groups a , e , and f are comprised of students taking only 1 class. Groups b , c , and d are comprised of students taking 2 classes. In addition, the diagram shows us that 3 students are taking all 3 classes. We can use the diagram and the information in the question to write several equations:



History students: $a + b + c + 3 = 25$

Math students: $e + b + d + 3 = 25$

English students: $f + c + d + 3 = 34$

TOTAL students: $a + e + f + b + c + d + 3 = 68$

The question asks for the total number of students taking exactly 2 classes. This can be represented as $b + c + d$.

If we sum the first 3 equations (History, Math and English) we get:

$$a + e + f + 2b + 2c + 2d + 9 = 84.$$

Taking this equation and subtracting the 4th equation (Total students) yields the following:

$$\begin{array}{r}
 a + e + f + 2b + 2c + 2d + 9 = 84 \\
 -[a + e + f + b + c + d + 3 = 68] \\
 \hline
 b + c + d = 10
 \end{array}$$

The correct answer is B.

1. The sentence makes clear that the timeframe in question is "the past several years."

Choice C is correct. The present perfect "have felt" correctly indicates that the orchestras began to feel the pressure in the past and continue to feel the pressure in the present.

Choice A incorrectly uses the conditional tense "would feel," which is inappropriate here to indicate an actual occurrence.

Choice B incorrectly uses the future tense "will feel," which is inconsistent with the past and present nature of the event.

Choice D incorrectly uses the past progressive tense "were feeling," which does not indicate that this continues to the present.

Choice E incorrectly uses the present tense "are feeling," which does not address the past nature of the sentence.

2. The sentence begins with a comparison: "Unlike modern irrigation techniques". But it compares those techniques to "the ancient Romans." This is not a valid comparison. Since we cannot change the comparison, we must find a choice that offers something that can logically be compared to irrigation techniques.

Choice B is correct. This correctly compares irrigation techniques.

Choice A illogically compares irrigation techniques to the ancient Romans.

Choice C is incorrect. While this sentence correctly compares irrigation techniques, it awkwardly states that the Roman methods "were" systems of canals. In contrast, choice B more accurately states that the Roman methods "consisted" of systems of canals.

Choice D illogically compares irrigation techniques to the ancient Romans.

Choice E is incorrect. Like choice C, this sentence correctly compares irrigation techniques, but it awkwardly states that the Roman methods "were" systems of canals.

3. The correct answer is C. The conclusion of the argument is "Company X has a good chance of commercial success with its new soft drink." Why? Because most consumers in the taste test preferred its flavor to that of an established brand. In order to weaken this argument, all we need to do is show that there may be some reason to doubt that the flavor will be enough for the drink to be successful. Choice C states that the new drink will be much more expensive than any other on the market. This does not prove that the drink will not be successful, but it does give a reason to suspect that it might not be.

4. The correct answer is D since it is the only answer choice that **MUST** be true.

The average revenue per film = total revenues \div number of films.

Revenues: We are told that the revenues for independent movies for the first half of this year (say \$1000) are already greater than the total revenues for all of last year (say \$999).

Number of Films: We know that more independent movies were released last year (say 10) than in the first half of this year (say 9).

We can clearly see that the average revenues per film for independent movies in the first half of this year ($\$1000 \div 9$) are greater than the average revenues for all independent movies released last year ($\$999 \div 10$).

5. The best answer is E. The passage explains that "Concord was probably at its political and economic pinnacle" and then goes on to describe the impact on societal norms: "old work customs" and unified religious worship were replaced by a labor market and "voluntary choice".

Choice A incorrectly reverses the cause/effect relationship. The author claims that economic development resulted in personal autonomy. Choice A claims that religious and political freedom contributed to, or resulted in, economic development.

Choice B highlights the lifestyles of Concord's elite citizens. While the passage mentions Concord's upper class, in terms of their land

ownerships and public power, it never describes their lifestyle per se.

Choice C, like choice A, incorrectly reverses the cause/effect relationship, claiming that social alienation was a requirement for economic and political development. According to the passage, it was the development that impacted societal norms, thereby causing a loosening of "common bonds". Furthermore, the author never claims that social alienation was necessary for development; perhaps there was a better way.

Choice D incorrectly emphasized Concord's place in American history. The author only goes as far as to mention Concord's preeminence in the local "Middlesex County".

6. Answer choice D is best. "Townpeople deserted the two existing churches—the Unitarian flock of the Reverend Ripley and an orthodox Calvinist congregation started in 1826—in droves." Instead, many became active in "diverse projects for the common good." In particular, "the village elite were remarkably active in these campaigns." The passage thus suggests that the village elite abandoned the two existing churches in favor of non-church activities such as those mentioned: "libraries, lyceums, charitable and missionary groups, Masonic lodges, antislavery and temperance societies."

Choice A directly contradicts the passage: "Even as they pulled back from customary roles and withdrew into private associations, they continued to exercise public power".

Choice B is incorrect because the author does not mention which group in particular was the stronger supporter of the religious pluralism; she only mentions that "a slim majority approved the change."

Choice C incorrectly asserts that Concord's village elite ceased all Sabbath worship. While they no longer worshiped at the same church on Sabbath, they did not necessarily cease all Sabbath worship.

Choice E claims that the elite used their wealth to found the diverse projects. While the passage mentions that the village elite "were

remarkably active in these campaigns" there is no mention of whose private funds, if any, were used to found them.

7. The question asks about the residents of 18th century Massachusetts, about those that lived in the state during the 1700's.

The best answer is C. The author notes that "Massachusetts inaugurated a new era of religious pluralism in 1834, ending two centuries of mandatory support for local churches". Therefore, throughout the two centuries prior to 1834, Massachusetts residents were forced to support local churches.

Choice A is incorrect because it describes Concord's residents only, and during the 19th century (1800s).

Choice B is incorrect because it describes Concord's residents only, and during the 19th century (1800s).

Choice D is incorrect because "America's Jubilee" was on "on April 19, 1825", and the question asks specifically about 18th century (1700s) residents.

Choice E is incorrect because it describes Concord's residents only, and during the 19th century (1800s).

8. The sentence begins with a modifier: "quarried from a site over five miles away". This clearly describes stone. However, the subject of the modifier in the original sentence is "scientists." This is incorrect. We need to find a choice that places some kind of stone as the subject of the modifier.

Choice D is correct. "Massive stone blocks" is correctly placed as the subject of the modifier.

Choice A incorrectly uses "scientists" as the subject of the opening modifier.

Choice B is incorrect. While the opening modifier correctly modifies "the massive stone blocks," the phrase "because of how" seems to

imply that the prehistoric Britons' method of transporting the stones is known.

Choice C incorrectly uses "scientists" as the subject of the opening modifier.

Choice E is incorrect. While the opening modifier correctly modifies "the massive stone blocks," this sentence omits reference to the prehistoric Britons and contains the awkward phrase "due to being transported".

9. The correct answer is C. The subject of the sentence is "the United States Navy", which is singular. However, in the underlined portion, the Navy is incorrectly replaced by the plural pronouns "they" and "their." Choice C correctly uses the singular pronoun "it" and "its" instead.

Choice A incorrectly uses the plural pronouns "they" and "their."

Choice B incorrectly uses the plural pronouns "they" and "their."

Choice D incorrectly uses the plural pronouns "they" and "their."

Choice E incorrectly uses the plural pronoun "their" though it does correctly use the singular pronouns "it."

10. The correct answer is E. The original sentence begins with a misplaced modifier. It is the domestic cat that descended from the wildcat. Choice E correctly rearranges the opening modifier to place the words "the domestic cat" immediately next to the modifier "descended from the African wildcat."

Choice A is incorrect because of the opening misplaced modifier.

Choice B is incorrect. The original modifier issue has been corrected. However, the phrase "which is an exceedingly short time" has no referent ("4,000 years ago" is not a time span but a specific moment).

Choice C is incorrect. The original modifier issue has been corrected. However, the phrase "has been scarcely sufficient..." incorrectly refers to the domestic cat.

Choice D is incorrect. The original modifier issue has been corrected. However, the phrase "that has scarcely been sufficient..." incorrectly modifies "genetic evolution". Also "the marked physical changes that transformed the animal" is redundant. Compare to E: "the marked physical changes in the animal," a much tighter way of conveying the same information.

11. The correct answer is D. The author claims that the "decrease of such insourcing will hurt America's competitiveness in basic research and applied technology, with serious consequences for years to come." In addition, the author claims that the decline in insourcing will "negatively affect the global outlook and experience of American students" because they will "not have the opportunity to learn about foreign cultures directly from members of those cultures." This assumes, however, that the students will not have contact with foreigners through channels other than school. Choice D asks whether the students have such contact elsewhere. If the answer to this question is "yes", the author's claims carry less weight.

12. The correct answer is B. Despite the fact that urban dwellers live close together and exurban dwellers live farther apart, the exurban dwellers report feelings of connectedness while urban dwellers report feelings of isolation. The question then asks which choice best accounts for this discrepancy.

Choice B is the only choice that provides a potential reason for the relative connectedness of exurban dwellers. It offers the possibility that because rates of attendance at houses of worship is higher in exurban areas, perhaps exurban dwellers find through these organizations a sense of community lacking in urban areas, where people perhaps do not have ongoing social contacts despite their physical proximity.

13. Choice D is the correct answer. The passage first talks about astronomers' assumptions regarding the earth's and moon's radii and core mass. The next two paragraphs detail the two methods astronomers employed to analyze their assumptions by using data collected by Lunar Prospector. The last paragraph discusses the implications of this data. The sum of these points is best accomplished in choice D. While choice D is somewhat bland, it is acceptable to equate "implications" and "deductions", as well as "hypothesis" and "assumption."

Choice A founders over the use of the singular word "method" and the word "proved". There were two methods, and "proved" is too extreme.

Choice B uses the word "changed," which is factually wrong because the passage says that it confirmed an assumption.

Choice C fails because of the use of the singular "method", and because "planets" is too general for a passage only concerning the Earth and its moon.

Choice E ignores the entire passage except for the last paragraph, and thus by definition can not be the passage's sum.

14. The correct answer is C. This question asks why the author included this detail. The author put in the detail to show a step in the investigation of the core ("composition") of the moon ("orbiting body").

Choice A is a distortion—the method was not so used.

Choice B not only comes from the third paragraph but also reverses the relationship--the magnetic field work confirmed the map.

Choice D contains the false word "earth;" in fact, the "moon" is the sole focus of the investigation of gravity's effects.

Choice E incorrectly states that an older theory was discarded; in fact the old assumption was confirmed.

15. This question requires examining the entire passage because there are no key words in the question stem to point you to a particular paragraph.

Choice A is correct. The information contained in A can be proven from the information in the passage. The ratios that it discusses can be found in the first paragraph: the earth's core contributes 55% of the earth's radius and 32% of its mass, compared to the moon's core contributing 20% of the moon's radius and 2% of its mass. Like many correct answers to inferences, the inference is very small.

Choice B reverses the relationship suggested in the passage--that the moon might have broken away from the earth.

Choice C does not have to be true both because said proof is not certain and because it is even less clear that the gravity map could be used for that purpose.

Choice D is a typical GMAT flight of fancy that sometimes is given as a wrong choice; as dinosaurs are not mentioned at all, this answer is impossible.

Choice E could but does not have to follow from the information provided. The passage does not give any information about the percentage of iron in the earth's core nor does it compare that aspect of the two cores.

16. The information to answer this question must come from the second or third paragraph. As it turns out, the choices all relate to the second one. The second sentence of that paragraph reads "measured minute variations in radio signals from *Lunar Prospector* as the craft moved towards or away from the Earth".

Choice D is the correct answer. Its phrase "changed position relative to the earth" is a fair equivalent of "moved towards or away from the Earth".

Choice A is incorrect. Changes in the craft's velocity were measured while the craft orbited the moon, not as A states as the craft "moved away from the Earth."

Choice B is incorrect. The craft's velocity, not the radio signals, was measured when the craft was orbiting the moon.

Choice C is incorrect because the passage does not discuss changes in the moon's gravity.

Choice E is incorrect because the passage does not discuss changes in the moon's gravitational pull over time.

17. The correct answer is B. The conclusion of the argument is that "the scientists must have discovered the butterfly at night." Why? Because the butterfly's color matches the green of the foliage, and the butterfly is active only at night. In order for this argument to work, one has to assume that there is no way for the scientists to detect the butterfly during the day, despite its camouflage. If there is a way for the scientists to detect the butterfly during the day, the conclusion is no longer logical.

18. The correct answer is E. The conclusion is that "one will have a wider selection of homes to choose from if one looks for a home in Florida rather than in Texas." Why? Because 15% of all homes in Florida are on the market whereas only 7% of all homes in Texas are on the market. This argument confuses percentages with specific numbers. It is possible that 15% of the number of homes in Florida is actually smaller than 7% of the number of homes in Texas. If the number of homes in both states were the same, or if the number of homes in Florida were greater than the number in Texas, the argument would be stronger. Choice E tells us that the number of homes in Florida is greater, thus making the argument stronger.

19. Choice C is correct. The modifier "rather than confining the animals to cages" correctly describes the subject "the zoo."

Answer choice A incorrectly uses "zoo's lions" as the subject of the opening modifier "rather than confining the animals to cages." This implies that the zoo's lions made the choice not to confine themselves to cages.

Answer choice B is incorrect because it uses the wordy and awkward phrases "in which the animals currently live" and "in a mimic of their".

Answer choice D incorrectly uses "zoo's lions" as the subject of the opening modifier "rather than confining the animals to cages." This implies that the zoo's lions made the choice not to confine themselves to cages.

Answer choice E is incorrect because "zoo" is singular but is matched with "their," a plural pronoun.

20. The correct answer is C. The first verb phrase of the sentence "can serve as camouflage" must be parallel with what follows "or". In the original sentence, however, "can serve as camouflage" and "to warn predators" are not parallel.

Choice A is incorrect because of faulty parallelism.

Choice B is incorrect because of faulty parallelism.

Choice D is parallel because it fits the construction "as X or as Y." However, choice D also contains the incorrect construction "predator's warning" instead of the better "warning to predators" (the warning is to the predators; it doesn't belong to the predators). D also incorrectly uses "which", which should refer only to the previous noun, not to an entire action or clause.

Choice E is incorrect because of faulty parallelism.

21. The correct answer is E. The conclusion of the argument is that "math education in this country does a disservice to our children." Why? Because math teachers emphasize "in higher grades the same narrow, skills-based approach that students learned in lower grades rather than the analytical tools they will need to solve complex math problems." In order to weaken the conclusion, we need to show that this approach has not had a negative effect on children's math skills. Choice E states that an increasing percentage of native first-year students qualify to take advanced math courses in college. This would seem to suggest that more children are

prepared for advanced math than had previously been the case, thus weakening the conclusion of the argument.

22. The correct answer is A. The conclusion of the argument is that "people must not be as interested in buying new homes as they were even six months ago." Why? Because of several factors (developers not buying land, contractors without work, banks issuing fewer mortgages) that the author assumes result from the supposed lack of interest in buying new homes. Choice A suggests, though, that there may be an alternative explanation for all of those factors: interest rates are too high for most people. So even though they remain interested in buying homes, they simply cannot afford to do so and the whole housing market has slumped accordingly.

23. The correct answer is A. Questions that ask about "primary purpose" must take into account the passage in its entirety. Overall, this passage is about the differing predictive uses of the various economic indicators. The only choice to reflect this is A. Choice B mistakenly focuses on a process that is not discussed in the passage. Choice C focuses only on a few sentences in the last paragraph of the passage. Choice D mischaracterizes the intent of the passage in using the verb "trace", which implies a chronology. And choice E is incorrect in describing the author's purpose with the verb "to argue." The author does not present an argument in the passage, but rather an objective comparison.

24. The correct answer is D. Imminent changes in the economic cycle are indicated by leading indicators, of which profit margins are an example (paragraph 3). The increase described in choice D is indeed a profit margin (revenue minus cost). Choice A focuses on the employment rate, which is a coincident indicator (paragraph 2). Choice B focuses on the number of new homes being built, which is not discussed in the passage. Do not assume that the number of new homes being built can be correlated with mortgage applications, which are indeed a leading indicator (paragraph 3). Choice C focuses on manufacturing, which is a coincident indicator (paragraph 2). And choice E focuses on bankruptcies, which are not mentioned in the passage.

25. The correct answer is B. Lagging indicators have no predictive power. They serve simply as confirmation of the recent state of the economy. Choice B – cutting costs to avoid short-term losses – requires predictive power. And so lagging indicators would not be helpful in determining whether companies should follow this course of action. Choice A is backward-looking and so lagging indicators could help. Choice C is also backward-looking, as are choices D and E.

26. The correct answer is A. In the last paragraph, the author writes: "Establishing a solid framework for understanding the behavior of these indicators helps economists to avoid miscalculations and to guide the country through periods of slow or negative economic growth." This is consistent with choice A. Choice B focuses only on a subpart of this analysis: the role of the indicators for the private investor. Choice C is not reflected in the passage. Choice D focuses only on downturns whereas the indicators are used for either upward or downward economic change. Choice E is not reflected in the passage.

27. The correct answer is E. First, the subject of the sentence is "capital gains tax," which is singular. The verb, however, is "have been being", which is plural. So we need to find a choice that contains a singular verb. On this basis we can eliminate A, B, and C. Second, the verb "has been being" is incorrect in this case. We do not need "being" to indicate that the tax became the subject of debate at some point in the recent past and has continued to be the subject of debate up to the present time.

28. The correct answer is E. The sentence begins with the modifier "the first woman elected to Congress..." But the subject of that modifier is "many people" instead of "Jeanette Rankin", as it should be. Eliminate A, B, and D. C is incorrect because "considered as" is unidiomatic. It should be "considered" or "regarded as". The best answer is E.

29. The correct answer is B. In the original sentence, the use of "which" incorrectly implies that the key interest rate has the curious effect, when in fact it is the raising of the interest rate that does. Also, "lowering housing prices instead of raise them" is not a parallel construction. And it is preferable to use "rather than" with verbs, in place of "instead of," which is better used with nouns. We can eliminate A, C, D, and E, because each repeats at least one of the mentioned mistakes.

30. The correct answer is B. The conclusion of the argument is that "eating whole grains can have an appreciable effect on cholesterol levels." This assertion is based on the fact that some people who ate three servings of whole grains every day for six months had lower cholesterol than did people who did not, even though their cholesterol levels were the same before the study began. The argument does not take into account, however, other factors, such as exercise, that may have contributed to the difference in cholesterol levels. Choice B asks whether there is indeed another factor – exercise – that should be taken into account.

31. The correct answer is C. The researchers recommend a diet high in calcium to prevent laryngeal polyps. Why? Because people with low calcium levels usually have these polyps. But the researchers assume that the low levels of calcium cause the polyps rather than the reverse: that the polyps somehow prevent the body from absorbing calcium. So if it were true that the causal relationship was reversed, eating calcium-rich foods would not have the desired effect.

32. The correct answer is C. The conclusion is that "if major industries increase their capital reserves, the employment rate will not decline in the future." Why? Because major industry did not have capital reserves. The author assumes that having capital reserves is sufficient to prevent a decline in the employment rate. However, the author fails to recognize that other factors could affect the employment rate, such as an increase in labor costs (as pointed out by choice C).

33. The correct answer is E. The original sentence is incorrect because the phrase "it is more closely related to the common raccoon than any member of the bear family" is ambiguous: the author clearly means that the panda is more closely related to the raccoon than to any bear, but the sentence could be read to mean that the panda is more closely related to the raccoon than any bear is related to the raccoon. This eliminates answer choices A and C. D is incorrect because it implies that the panda is more closely related to the raccoon than any bear is related to the raccoon. This is not what the author intends. Also, "because of" is preferable to "due to" in this sentence. "Due to" functions as an adjectival phrase and is used to modify a noun (e.g., His **failure** was due to his laziness.). "Because of" functions as an adverbial phrase and is used to modify a verb or verb phrase (e.g., He **failed** because of his laziness.). In this case, the modified phrase is "refer to the panda as a bear." Since this is a verb phrase, "because of" is required. Eliminate A and B ("due to").

34. The correct answer is D. The subject of the sentence is "one of the most problematic ethnic groups", a singular noun. The verb, however, is "were," which is plural. Eliminate A, B, and E, for failing to match singular with singular. The singular present perfect verb "has been" in D is preferable to the singular past verb "was" in C because of the ongoing nature of the problem. C is also incorrect because "the reunified Germany's most problematic ethnic groups" is an awkward construction.

35. The correct answer is C. The answer to a question that asks about "primary purpose" must take the entirety of the passage into account. Since the author never states an opinion about the subject of the passage, the primary purpose of the passage cannot be characterized by any verb that requires an opinion. Choice A begins with "criticize", which requires an opinion. Choice B begins with "challenge", which requires an opinion. Choice E begins with "argue," which requires an opinion. Choice D begins with "explain", which is neutral. However, the passage as a whole was not concerned with the "popularity of leveraged buyouts during a certain period." Rather, the passage was concerned with describing how leveraged buyouts are used and how their status changed over time. This is reflected in choice C.

36. The correct answer is D. The author discusses the RJR Nabisco buyout in the context of its consequences: the eventual sale of RJR Nabisco to pay off the debts used to buy the company in the first place. These unintended results are reflected in choice D.

37. The correct answer is B. The reference to the sale of RJR Nabisco provides support for choice B. Presumably, Kohlberg Kravis Roberts did not purchase RJR Nabisco with the intention of having to sell it to pay off the loans used to buy it. This is reflected in choice B. The passage does not offer support for any of the other choices. Choice C, though tempting, is incorrect because we do not have any information in the passage about the attitude of the banks towards leveraged buyouts today, only about their attitude during and immediately after their period of greatest popularity.

38. The correct answer is D. The conclusion of the argument is that "Company X's fuel costs this year will be significantly higher than they were last year. Why? Because some of the company's plants switched from oil to natural gas when the price of gas was lower, and now the price of gas has outstripped the price of oil. The author does not, however, take into account the fact that only "some" of the company's plants converted to natural gas. Some of the plants, then, still use oil, which is now cheaper. So in order to conclude that the company will have to spend more on fuel, the author must assume that the extra cost of the natural gas for the plants that converted is at least as much as the cost of the oil for the plants that did not.

39. The correct answer is C. The conclusion of the argument is that the nominees "are more notable for their close ties to corporate and economic interests" than for their positions on controversial issues. The first boldfaced statement is a recognition of the fact that the president's nominees have been branded conservative. The second boldfaced statement offers information in support of the assertion that the nominees are more notable for their corporate ties. Only choice C establishes this relationship correctly.

40. The correct answer is B. The original sentence incorrectly compares the work of Byron and Shelley to poets. In addition, the use of "which" in the original sentence incorrectly implies that "themes of love and beauty" gave rise to Romanticism. Eliminate A, C, and D for incorrect comparisons. Eliminate E for awkward construction.

41. The correct answer is C. In the original sentence, "was" does not need to be repeated after "nor." Moreover, "having been won over..." incorrectly modifies "classical guitar" (the subject of the preceding clause) instead of Segovia. Eliminate A. B repeats the modifier mistake and can be eliminated. D is incorrect because the phrase "classical guitar did not have prestige nor was it performed..." is both unidiomatic ("not ... nor" is incorrect) and unparallel ("did not have....nor was it performed"). E is incorrect because it repeats "was" after "nor" and because it implies that Segovia was won over by the sound of the instrument in the mid-twentieth century, while the original sentence makes clear that this happened at some earlier point.