

**15 of 20**

Some wealthy city-dwellers become enchanted with the prospect of trading their hectic schedules for a bucolic life in the countryside, and they buy property with a pleasant view of farmland—only to find the stench of the livestock so \_\_\_\_\_ that they move back to the city.

- bovine
- pastoral
- noisome
- atavistic
- olfactory
- mephitic

*For each of Questions 16 to 20, select one answer choice unless otherwise instructed.*

*Questions 16 through 18 are based on the following reading passage.*

Often the most influential developments initially appear to be of minor significance. Consider the development of the basic stirrup for example. Without stirrups horse and rider are, in terms of force, separate entities; lances can be used from horseback, but only by throwing or stabbing, and mounted warriors gain only height and mobility. In medieval times, a lance couched under the rider's arm, unifying the force of rider and weapon, would throw its wielder backwards off the horse at impact. Stirrups unify lance, rider, and horse into a force capable of unprecedented violence. This development left unusually clear archaeological markers: With lethality assured, lances evolved barbs meant to slow progress after impact, lest the weight of body pull rider from horse. The change presaged the dominance of mounted combat, and increasingly expensive equipment destroyed the venerable ideal of freeman warriors.

New technology demanded military aristocracy, and chivalric culture bore its marks for a millennium.

**16 of 20**

The primary purpose of the passage is to

- discuss the influence of a recent archeological discovery
- explore the societal significance of a technological innovation
- assess the state of research in a given field
- lament the destruction of certain social ideals
- explicate the physics of combat artillery

**17 of 20**

It can be inferred from the passage that the author believes which of the following about innovations in military technology?

- Their study merits additional research.
- They had more lasting influence than did those of the ancient world.
- Most of them had equally far-reaching repercussions.
- Prior to their application, the military value of horses was considered insignificant.
- Many of them are archaeologically ambiguous.

**18 of 20**

Select the sentence in the passage in which the author cites the physical effects of a technological innovation being discussed as an example of a previous generalization.

*Questions 19 through 20 are based on the following reading passage.*

Few mathematical constructs seem as conceptually simple as that of randomness. According to the traditional definition, a number is random if it is chosen purely as the result of a probabilistic mechanism such as the roll of a fair die. In their groundbreaking work regarding complexity and the limitations of formal systems, mathematicians Gregory Chaitin and A.N. Kolmogorov force us to consider this last claim more closely.

Consider two possible outcomes of throwing a fair die three times: first, 1, 6, and 2; second 3, 3, and 3. Now let us construct two three-member sets based on the results. Though the first set—{1,6,2}—intuitively seems more random than the second—{3,3,3}, they are each as likely to occur, and thus according to the accepted definition, must be considered equally random. This unwelcome result prompts Chaitin and Kolmogorov to suggest the need for a new standard of randomness, one that relies on the internal coherence of the set as opposed to its origin.

### 19 of 20

Which of the following best describes the organization of the passage as whole?

- A concept is introduced; a traditional definition is put forward; a thought experiment is described; a new definition is proposed; the traditional definition is amended as a result.
- A concept is introduced; a traditional definition is supported by authorities; a thought experiment is described; the implications of the experiment are discussed.
- A concept is introduced; a traditional definition is considered and rejected; a thought experiment is described; a new definition is proposed.

- A concept is introduced; a traditional definition is called into question; a thought experiment is described; the implications of the experiment are discussed.
- A concept is introduced; authorities are called in to reevaluate a definition; a thought experiment is described; the implications of the experiment are considered and rejected.

**20 of 20**

Consider each of the choices separately and select all that apply.

Which of the following is an inference made in the passage above?

- The results of the same probabilistic mechanism will each be as likely as the other to occur.
- According to the traditional definition of randomness, two numbers should be considered equally random if they result from the same probabilistic mechanism.
- Different probabilistic mechanisms are likely to result in similar outcomes.

# SECTION 6: QUANTITATIVE REASONING

For each of Questions 1 to 7, compare Quantity A and Quantity B, using additional information centered above the two quantities if such information is given. Select one of the four answer choices below each question and fill in the circle to the left of that answer choice.

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

A symbol that appears more than once in a question has the same meaning throughout the question.

1 of 20

$$\frac{x}{6} + 2 = \frac{6}{2}$$

$$\frac{y}{3} + 2 = \frac{9}{3}$$

**Quantity A**

$$\frac{(x-1)}{y}$$

**Quantity B**

$$\frac{(y-1)}{x}$$

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

- The relationship cannot be determined from the information given.

**2** of 20

**Quantity A**

The distance that Bob drives in 3 hours at an average speed of 44 miles per hour

**Quantity B**

The distance that Inez drives in 2 hours and 30 minutes at an average speed of 50 miles per hour

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

**3** of 20

The height of a rectangular solid is increased by  $p$  percent, its depth is decreased by  $p$  percent and its width is unchanged.

**Quantity A**

The volume of the new rectangular solid if  $p = 20$

**Quantity B**

The volume of the new rectangular solid if  $p = 40$

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

**4** of 20

In  $\Delta ABC$ ,  $AB = AC$

**Quantity A**

The sum of the degree measures of angle  $B$  and angle  $C$

**Quantity B**

90

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

**5** of 20

12.5 percent of  $k$  is 80.

$k$  is  $y$  percent of 80.

**Quantity A**

$y$

**Quantity B**

650

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

**6** of 20

Set  $P = \{a, b, c, d, e, f, g\}$

Set  $Q = \{a, b, c, d, e, f\}$

$a, b, c, d, e, f$ , and  $g$  are distinct integers

**Quantity A**

Range of Set  $P$

**Quantity B**

Range of Set  $Q$

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

**7 of 20**

Sequence  $F$  is defined as  $F_n = F_{(n - 1)} + 3$  and  $F_1 = 10$ .

**Quantity A**

The sum of  $F_4$  through  
 $F_{10}$

**Quantity B**

The sum of  $F_6$  through  
 $F_{11}$

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

**8 of 20**

A number,  $n$ , is multiplied by 6 and the product is increased by 24. Finally, the entire quantity is divided by 3. Which of the following is an expression for these operations, in terms of  $n$ ?

- $\frac{n}{3} + 8$

$\frac{n+24}{2}$

$2n + 8$

$3n + 24$

$16n$

**9 of 20**

The average (arithmetic mean) of  $a$  and  $b$  is 10, and the average of  $c$  and  $d$  is 7. If the average of  $a$ ,  $b$ , and  $c$  is 8, what is the value of  $d$ ?

**10 of 20**

In the  $xy$ -plane, square  $ABCD$  has vertices at  $A(3, 7)$ ,  $B(3, 12)$ ,  $C(8, x)$ ,  $D(8, y)$ . What is the area of  $ABCD$ ?

16

20

25

30

36

**11 of 20**

Houses Sold in July		
Week	Peter	Dylan
Week 1	4	9
Week 2	6	3
Week 3	10	10
Week 4	4	2

The table above shows the number of houses sold per week for the month of July by two real estate agents, Peter and Dylan. What is the difference between the median number of houses sold per week by Dylan and the median number of houses sold per week by Peter?

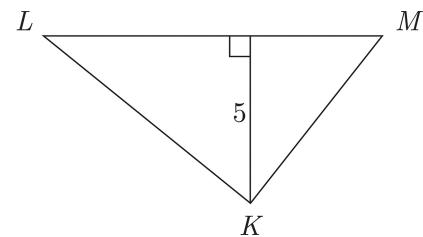
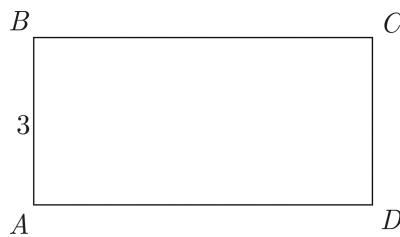
- 0
- 1
- 2
- 5
- 6

**12 of 20**

At Flo's Pancake House, pancakes can be ordered with any of six possible toppings. If no toppings are repeated, how many different ways are there to order pancakes with three toppings?

- 20
- 40
- 54
- 120
- 720

**13 of 20**

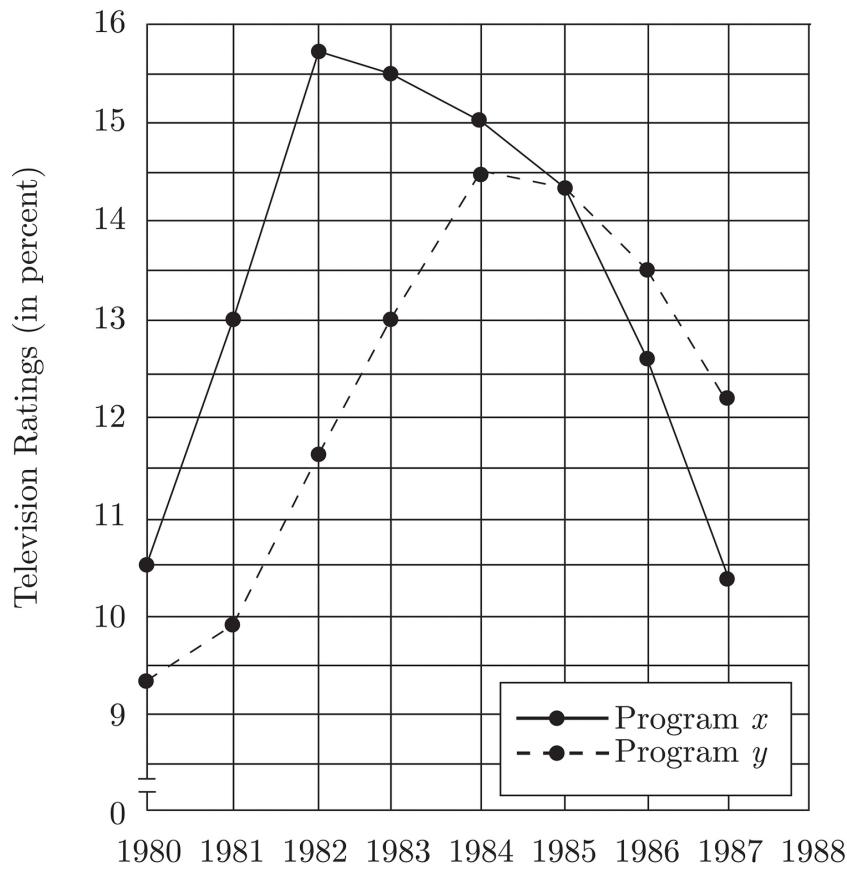


The area of triangle  $KLM$  is equal to the area of rectangle  $ABCD$ . If the perimeter of  $ABCD$  is 16, what is the length of  $LM$ ?

- $\frac{3}{2}$
- 3
- $\frac{16}{5}$
- 5
- 6

Questions 14 through 16 refer to the following graph.

TELEVISION RATINGS\* IN THE UNITED STATES  
1980–1987



\*Ratings equal the percent of television households in the United States that viewed the program.

For how many of the years shown did the ratings for Program  $y$  increase over the ratings for Program  $y$  in the previous year?

- Two
- Three
- Four
- Five
- Six

**15** of 20

In 1995, there were 95 million television households in the United States. In 1983, if the number of television households was 80 percent of the number of television households in 1995, then approximately how many television households, in millions, viewed Program  $y$  in 1983?

- 80
- 76
- 15
- 12
- 10

**16** of 20

In 1984, there were 80 million television households in the United States. If 65 million television households viewed neither Program  $x$  nor Program  $y$ , then approximately how many of the television households, in millions, in the United States viewed both Program  $x$  and Program  $y$ ?

- 8.6
- 11.9
- 16.5
- 23.2

23.6

**17 of 20**

Each of the 576 houses in Tenantville is owned by one of the following landlords: Matt, Gavin, Angela, or Susan. Matt and Angela together own twice as many houses as Gavin and Susan own. If Gavin owns 100 more houses than Susan owns, and Matt owns 100 more houses than Angela owns, how many houses does Susan own?

46

142

146

192

242

**18 of 20**

One-fourth of the cars that an automobile manufacturer produces are sports cars, and the rest are sedans. If one-fifth of the cars that the manufacturer produces are red and one-third of the sports cars are red, then what fraction of the sedans is red?

**19 of 20**

A candy jar has 4 lime, 10 cherry, 8 orange, and  $x$  grape candies. If Tom selects a candy from the jar at random and the probability that he selects an orange candy is greater than 20 percent, which of the following could be the value of  $x$ ?

Indicate all such values.

10

14

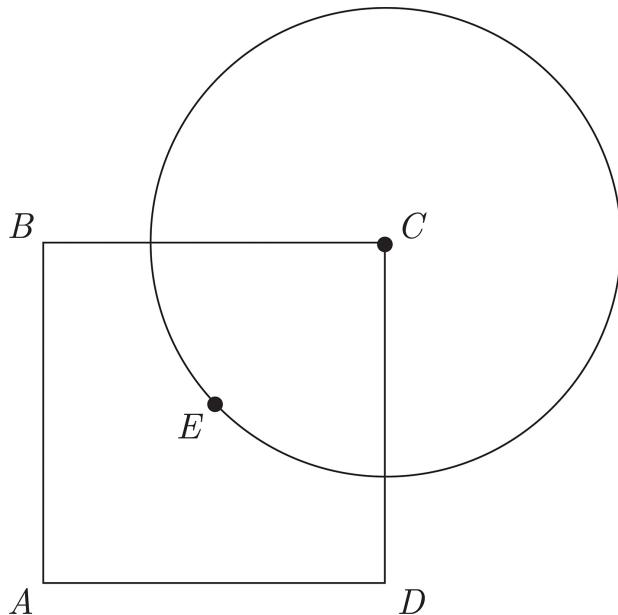
18

22

24

28

20 of 20



Square  $ABCD$  and a circle with center  $C$  intersect as shown. If point  $E$  is the center of  $ABCD$  and if the radius of circle  $C$  is  $k$ , then what is the area of  $ABCD$ , in terms of  $k$  ?

$\frac{k^2}{2\pi}$

$\frac{\pi k^2}{2}$

$\pi k^2$

$k^2$

$2k^2$

# Chapter 21

## Practice Test 2: Answers and Explanations

# PRACTICE TEST 2: ANSWER KEY

## Section 3: Verbal Reasoning

1. inflection and utilized
2. expressive, relegated, and conflict with
3. axiomatic
4. staved off, contributed to, and affliction
5. glib, spontaneity, and tepid
6. shallow
7. B
8. E
9. D
10. E
11. B
12. A, B, and C
13. morose and dour
14. tyro and neophyte
15. embellished and colored
16. thewy and sinewy
17. A and C
18. A
19. B
20. The “note versus rote” controversy in music education continued well into the mid- nineteenth century.

## Section 4: Quantitative Reasoning

- 1.** C
- 2.** A
- 3.** A
- 4.** B
- 5.** A
- 6.** D
- 7.** C
- 8.** B
- 9.** B
- 10.** 10.5
- 11.** D
- 12.** C
- 13.** A, C, D, and E
- 14.** B
- 15.** E
- 16.** A
- 17.** A
- 18.** B
- 19.** 7
- 20.** C

## **Section 5: Verbal Reasoning**

- 1.** systematic
- 2.** obdurate and capitulate
- 3.** corruptibility, venal, and redundancy
- 4.** illegal and unabashedly

- 5.** insolvent
- 6.** eschew obfuscation, recondite, and a limpid
- 7.** A and C
- 8.** B
- 9.** D
- 10.** A
- 11.** To address the problem, the British government instituted a sinking fund, using tax revenue to buy back the bonds in the open market.
- 12.** rarefied and meager
- 13.** adversity and tribulation
- 14.** a venerable and an august
- 15.** noisome and mephitic
- 16.** B
- 17.** E
- 18.** Stirrups unify lance, rider, and horse into a force capable of unprecedented violence.
- 19.** D
- 20.** A and B

## **Section 6: Quantitative Reasoning**

- 1.** A
- 2.** A
- 3.** A
- 4.** D
- 5.** A
- 6.** D

**7.** A

**8.** C

**9.** 10

**10.** C

**11.** B

**12.** A

**13.** E

**14.** C

**15.** E

**16.** A

**17.** A

**18.**  $\frac{7}{45}$

**19.** A and B

**20.** E

## 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 2	# Correct
Section 3	
Section 5	
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 2	# Correct
Section 4	
Section 6	
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. inflection and utilized

For the first blank, the transition “more important” tells you to change direction from “actual words.” Also, *sarcastically* is an example of tone. Look for a choice that means tone. *Inflection* fits tone. *Pitch* is nonverbal, but it does not match the example of sarcastically. *Accuracy* does not fit. For the second blank, look for a word that means *conveyed* or *spoken*. *Utilized* is the best match. *Implied* and *repudiated* don’t fit.

## 2. **expressive, relegated, and conflict with**

Try working with the first blank first. The clue is *artistic*, and the transition *and* indicates the first blank should be a word that is the same as artistic. *Expressive* is the best choice; neither *tedious* nor *tiresome* works. *Though* changes the direction of the sentence—though the studio likes the creative/artistic aspect, something negative must be happening to creativity—it’s brought down to a secondary position. Eliminate *uplifted* and *compared* for blank (ii) because they are not negative, and choose *relegated*. Turning to the third blank, “organization and hierarchy” are in opposition to *creativity*, so *conflict with* makes the most sense.

## 3. **axiomatic**

You are given the clue that the beliefs “are in conflict” and “cannot all be correct.” Therefore, whatever goes into the blank must be synonymous with *correct* or something we can infer correctness from. The correct answer is *axiomatic*, which means self-evident or universally true. *Disputable* is the opposite of what the sentence requires, and *ubiquitous* and *historic* are not synonymous with self-evident. Although *empirical*, meaning derived from observation, might fit science, it is not a good fit for religion.

**4. staved off, contributed to, and affliction**

The clue “Although most preventative medical ointments commonly in use” tells you that most ointments would prevent an infection, the one Helen used did not. Recycle the clue, and put a word that means prevent in the first blank; *staved off* is the best match. Work with the second and third blanks together. The ointment did not prevent an infection, and the clue “much to her dismay” tells you that something bad happened. The only pair that makes sense together is *contributed to* and *affliction* because they tell you that the ointment made her problem worse.

**5. glib, spontaneity, and tepid**

For the first blank, the clue is *offhand remarks*, so the blank means something like “offhand.” *Glib*, which means “superficial or showing a lack of concern,” is the closest match for this. Sticking to *prepared talking points* can result in a lack of “excitement” or “naturalness,” which *spontaneity* matches. For the last blank, you know the crowd’s responses are *lukewarm*, so the answer for that blank is *tepid*.

**6. shallow**

The clue is the entire clause that follows the semicolon: “its characters take trivial concerns seriously while thoughtlessly dismissing important ones.” Look for a word that means superficial or petty to go in the blank. The only one that fits is *shallow*.

**7. B**

The third paragraph states that if incorrect quantities of Haber nitrogen were applied, “the wheat crop would grow taller and thicker, eventually toppling over and rotting.”

Losing a crop would be an undesirable effect, making (B) the correct answer. Eliminate (A) because the passage doesn't compare the effects of Haber nitrogen on different kinds of crops. The passage doesn't provide any information to support (C) and (D). Choice (E) contradicts the passage, which says the farmers were wary of the substance.

**8. E**

According to the first paragraph, there has been no sharp decline in the world's population and, therefore, we can surmise that food production has been sufficient to allow for the existing population growth, as in (A). In the second paragraph, the author mentions the invention of the tractor as one of the factors that allowed more crops to be grown for human consumption. This reflects the technological innovation in (B). In the last paragraph, the author notes that the environmental movement has opposed efforts at genetic engineering. Thus, (C) is implied as well. The author notes that increases in crop production through the invention of the tractor and ammonia prevented Malthus's predictions from being realized, and this rules out (D). The extent of the impact of genetic engineering is not clear. We don't know that a Malthusian disaster would have been a *certainty* without genetic engineering. Therefore, the correct answer is (E) because it is not implied.

**9. D**

The first paragraph states that Malthus believed that "population increases in a geometric ratio, while the means of subsistence increases in an arithmetic ratio." More simply put, Malthus argued that population growth

happens at a significantly faster rate than food production. Only (D) demonstrates this.

10. **E**

The first paragraph presents Malthus's prediction about what would happen if population growth were to outstrip food production. If there were too many people and not enough food, you would expect a significant or rapid population decline. Look for a word to replace *precipitous* that is similar to *significant* or *rapid*. *Sharp*, (E), is the best word.

11. **B**

The “rosy prospect” refers to the previous paragraph’s discussion of the booming tourism industry in Australia, which implies a positive future, and the “cloud on the horizon” refers to the conflict between the rights of the Aborigines and the need for the money from tourism, a potential problem. Choice (A) incorrectly interprets the quote as referring to a literal *horizon and prospect*. Choice (C) is also too literal, taking *prospect* to mean view. Choice (D) is incorrect because, although this may be true based on later information in the passage, it is not an accurate interpretation of this phrase. Choice (E) is too strong because the future is described as generally good, not hopeless.

12. **A, B, and C**

All three statements are given as sources of the conflict. Choice (A), *economic hardships*, is mentioned in the third paragraph. Due to financial difficulties, many regions are unwilling to give up the income derived from tourists visiting Aboriginal lands. Choice (B) is discussed in the second paragraph. The expansion of Western culture is the

reason that the Aborigines have moved inland and abandoned other sacred sites. Choice (C) is mentioned in the first sentence. Tourism is described as particularly important due to the “dearth of natural resources.”

#### 13. **morose** and **dour**

The first part of the clue is “mercurial character,” which means George’s moods change frequently. The second part of the clue is “one moment he was optimistic about his prospects,” and the transition is *the next he was*. Thus, the blank should be the opposite of optimistic; look for words that mean pessimistic. Both *morose* and *dour* are similar to pessimistic. *Hopeful* and *buoyant* have the opposite meaning, and *witty* and *immoral* are not related.

#### 14. **tyro** and **neophyte**

The clue is that she “began her first job.” Also, the contrast of “wealthy suburb” and “llama caretaker on a rural farm” suggests that she’d feel out of place or lacking in experience at her first job. Look for words that mean beginner. *Tyro* and *neophyte* are the only words that mean beginner. *Agronomist* and *cultivator* are traps for people who focused too heavily on the farm. *Concierge* and *curator* are traps for people who focused too heavily on *caretaker*.

#### 15. **embellished** and **colored**

The clue “King Duncan’s death at the hand of Macbeth comprises the play’s only historical truth” tells you that the version of events related in Macbeth was not very accurate. Does *anachronistic* mean inaccurate? No; cross it out. What about *effusive*? No. In contrast, *embellished* works well, but *prosaic* and *serpentine* do not. Finally,

*colored*—which, like *embellished*, means *misrepresented* or *distorted*—fits the blank nicely.

16. **thewy and sinewy**

The word that goes into the blank describes superheroes, of whom the clue phrase states that “every detail of their musculatures would be visible through their clothing.” Clearly, something like *muscular* is called for, and both *thewy* and *sinewy* fit the bill. The other four words don’t fit: *superfluous* means unnecessary, *pneumatic* means full of air, *flocculent* means covered in wool, and *atrophied* means shriveled due to disuse.

17. **A and C**

Choice (A) is correct because the passage states that “... without this mundane structure, every cell division would be a step into senescence, and the onset of old age would begin at birth.” Choice (B) is not correct because there is no information about what scientists used to think about telomeres. Choice (C) is correct because you are told that one function of telomeres is to mitigate the loss of DNA bases. If no bases are lost, then this role is not important anymore.

18. **A**

The first paragraph says that without telomere buffers “every cell division would be a step into senescence, and the onset of old age would begin at birth,” and the last sentence of the passage states that “many ailments associated with normal old age begin only after the telomere buffer has been exhausted through years of cell division.” If the protection offered by the buffers didn’t exist, you could expect problems related to aging to start sooner, as (A) suggests. Choice (B) goes too far; though

the passage speaks on the onset of old age at birth, there is no certainty that almost no one would live past childhood. The passage provides no support for (C), (D), or (E).

**19. B**

The passage as a whole provides a short history of two types of early musical education, the rote method and the note method. Nowhere in the passage does the author come out in favor of either method, thereby ruling out (A) and (C). Given that Reverend Walter taught music by the note method he developed, (D) doesn't make sense. While it is true that rote learning was inconsistently practiced, as (E) states, this does not answer the question.

**20. The “note versus rote” controversy in music education continued well into the mid-nineteenth century.**

The use of the word “controversy” in the final paragraph is the only indication the author gives that the decision between “note” or “rote” as a musical learning technique was in any way contentious.

## **Section 4**

**1. C**

The Quantities have numbers with great exponents and none of the exponent rules can be applied, so look for a way to factor. In Quantity A, factor  $98^7$  into its prime factors. The prime factors of 98 are  $2 \times 7 \times 7$ , so  $98^7$  can be

rewritten as  $(2 \times 7^2)^7$ . Use the Power-Multiply rule to combine the exponents and simplify to  $2^7 \times 7^{14}$ . Quantity A can be rewritten as  $\frac{2^7 \times 7^{14}}{7^{63}}$ . Use the Divide-Subtract rule to combine the exponents with base 7 to find that  $\frac{2^7 \times 7^{14}}{7^{63}} = \frac{2^7}{7^{49}}$ . Therefore, the quantities are equal. The correct answer is (C).

2. **A**

Translate and solve each expression. The expression “5 is  $r$  percent of 25” becomes  $5 = \frac{r}{100} \times 25$ . So,  $r = 20$ . The expression “ $s$  is 25 percent of 60” becomes  $s = \frac{25}{100} \times 60$ . So,  $s = 15$ , and Quantity A is greater.

3. **A**

Plug In for this question. Let  $h = 3$ , which makes  $g = 6$ . Quantity A equals  $\frac{6}{1} = 6$  and Quantity B equals  $\frac{1}{3}$ . Quantity A can be greater than Quantity B, so eliminate (B) and (C). Because  $g$  and  $h$  are positive integers, Quantity A will always be greater than 1 and Quantity B will always be less than or equal to 1. Quantity A will always be greater than

Quantity B.

4. **B**

The average is the sum divided by the number of elements. Because three elements make up both averages, you can simply compare the sum of each set.  $67 + 78 + 101 + x = 246 + x$ , and  $66 + 79 + 102 + x = 247 + x$ . Thus, Quantity B is greater.

5. **A**

Plug In! Say there were 10 million tons in 1988. The percent increase was  $\frac{0.79}{10}$ . Then in 1989 there were 10.79 tons, so the percent increase from 1989 to 1990 was  $\frac{0.79}{10.79}$ .  
Quantity A must be greater.

6. **D**

Plug In. Make  $m = 2$  and  $n = 3$ . For Quantity A, the weight of 2 peanuts at  $3 + 3$  mg each is  $2 \times 6 = 12$  mg. For Quantity B, the weight of 3 almonds at  $2 + 3$  mg each is  $3 \times 5 = 15$  mg. Eliminate (A) and (C). Plug In again to see if you can get a different result. Keep  $m = 2$ , and change  $n$  to 2. For Quantity A, the weight of two peanuts at  $2 + 3$  mg each is  $2 \times 5 = 10$  mg. For Quantity B, the weight of two almonds at  $2 + 3$  mg each is  $2 \times 5 = 10$  mg. Eliminate (B), and choose (D).

7. **C**

Remember, when you have large exponents, try to break them down into their prime factors. You can rewrite Quantity A as  $5^{27}(5)(115)$ , or  $5^{28}(115)$ . The quantities are equal.

8. **B**

For Quantity A, there are three ways to get an even number (these are 2, 4, 6). So, the probability of “rolling an even” and then “rolling an even” is  $\frac{3}{6} \times \frac{3}{6} = \frac{1}{4}$ . For multiple independent events, multiply the probabilities.

For Quantity B, there are four ways to not get a multiple of 3 (these are 1, 2, 4, 5). The probability of “not rolling a multiple of 3” and then “not rolling a multiple of 3” is  $\frac{4}{6} \times \frac{4}{6} = \frac{4}{9}$ . Quantity B is greater than Quantity A.

9. **B**

There are variables in the answer choices, so Plug In. If  $r = 2$ , then  $4((2) - s) = -2$ . Divide both sides by 4 to find  $2 - s = -0.5$ . So,  $s = 2.5$ . The target answer is  $r$ , which is 2. Go to the answer choices and Plug In 2.5 for  $s$ . Choice (B) is the only answer choice that matches your target of 2.

10. **10.5**

Plug In! Let’s say there are 100 employees. 25 percent of the employees take the subway to work, so  $\frac{25}{100} \times 100 =$

25. Of the 25 employees who ride the subway, 42 percent of them transfer during the commute, so  $\frac{42}{100} \times 25 = 10.5$ . Therefore, 10.5 out of 100 employees transfer lines. This is 10.5 percent.

11. **D**

Plug In. If  $a = 3$ ,  $b = 6$ ,  $c = 3$ ,  $d = 5$ , and  $e = 10$ , the value of the equation is  $\frac{10\left(3 + \frac{6}{3}\right)}{5} = 10$ . Half of 10 is your target of

5. Try doubling each variable to find the one that yields 5.

The only one that works is doubling  $d$  to 10 so that the

equation is  $\frac{(10)\left(3 + \frac{6}{3}\right)}{10} = 5$ .

12. **C**

For this question, you can FOIL:

$(\sqrt{5})^2 - (\sqrt{3})(\sqrt{5}) - (\sqrt{5})(\sqrt{3}) + (\sqrt{3})^2$ . This simplifies to  $5 - 2\sqrt{15} + 3$ , or  $8 - 2\sqrt{15}$ .

13. **A, C, D, and E**

Plug the information given into the formula for the area of a triangle to learn more about the relationship between  $x$

and  $y$ :  $A = \frac{bh}{2} = \frac{xy}{2} = 108$ . The product of  $x$  and  $y$  is 216, so  $x$  needs to be a factor of 216. The only number in the answer choices that is not a factor of 216 is 5. The remaining choices are possible values of  $x$ .

14. **B**

Europe's electricity production (2,000 megawatt-hours) most closely matches that of Asia (1,900 megawatt-hours).

15. **E**

The ratio for North America is 2,300 to 0.083 or,  $\frac{2,300}{0.083} = 27,710$ . This is the greatest ratio of any of the continents.

16. **A**

Africa's population is 10.6 percent on the pie chart; South America's is 7.9 percent. Right away, you can eliminate all of the answer choices that are smaller than 368. Now you are left with (A) and (B). Because the question gives you South America's population (368 million), you can use a proportion to find the population of Africa. The proportion would look like this:  $\frac{0.079}{368} = \frac{0.106}{x}$ , where  $x$  is equal to the population of Africa. Cross multiplying gives you  $0.079x =$

$0.106 \times 368$ , so  $x = 493.7$ .

17. **A**

If the average of 5 crates is 250, then their total =  $5 \times 250 = 1,250$ . To find the high end of the range for the fifth crate, make the other crates as light as possible: Make the two lightest crates 200 each, for a total of 400, and the two heaviest crates 300 each, for a total of 600; together, those four crates weigh 1,000 pounds, leaving 250 pounds for  $x$ . Because only (A) sets 250 pounds as the high end, you can eliminate (B), (C), (D), and (E).

18. **B**

Substitute 6 for  $x$  in the equation,  $s_x = 2s_{x-1} + s_{x-2}$  and work carefully from there.  $s_6 = 2s_{6-1} + s_{6-2}$ , which simplifies to  $s_6 = 2s_5 + s_4$ . However, you don't know  $s_5$  or  $s_4$ . Use the equation to find these missing terms.  $s_4 = 2s_3 + s_2$ , and the problem tells you  $s_2$  and  $s_3$  are equal to 2.  $s_4 = (2 \times 2) + 2$ , which is 6. Now you need to find  $s_5$ . Using the equation, you get  $s_5 = (2 \times 6) + 2$ , which is 14. Now that you know  $s_5$  and  $s_4$ , go back to your original equation,  $s_6 = 2s_5 + s_4$ , and  $s_6 = (2 \times 14) + 6$ , which is 34.

19. **7**

Always draw a figure when one is not provided. In this case, line segment  $XZ$  has a length of 68. Point  $Y$  is the midpoint of the segment, because  $2XY = XZ$ . To find the lengths of these segments, divide 68 by 2. Segment  $YZ = 34$ . Because  $YZ = 4a + 6$ , you know that  $34 = 4a + 6$ , so  $a = 7$ .

20. **C**

Make a spot for each day and fill in the number of guests who could occupy that spot. Burke has 5 choices for Monday, 3 choices for Tuesday, 4 choices for Wednesday (because one politician was chosen on Monday), 6 choices for Thursday, and 10 choices for Friday (because 4 of the 14 potential guests have already been chosen). Multiply these to arrive at 3,600 different schedules.

## Section 5

### 1. **systematic**

The clue is “simple, unambiguous, and unchanging.” The transition phrase is *in other words*. The transition maintains the direction of the clue. Therefore, find a word that means regimented. *Systematic* is the best match.

### 2. **obdurate and capitulate**

Try working with the second blank first. The second blank is talking about what a player will be forced to do if he’s stubborn. The clue is that the “mistakes” the player makes will lead to the “prevailing strategy of his or her opponent.” Because of these clues, we know that a word that means “to give in” would be a good match. *Capitulate* is the only word that works, as *dissent* means to disagree and *repudiate* means to reject. Now look at the first blank. The first blank is referring to something all great chess players know. The clue tells us that they know *stubbornness will almost surely lead to mistakes that force a player to capitulate to the prevailing strategy of his or her opponent*. As you can see, we needed to solve for the second blank first, as we would not have known what *stubbornness* would lead to without doing so. Recycle the word *stubbornness* as your word for the blank. *Obdurate* is the only word that works for the first blank. *Finicky*

means to be overly particular, and *vituperative* means to be combative.

### 3. **corruptibility, venal, and redundancy**

The first two blanks are related, but there isn't a strong clue for either one in the first part, so start with the third blank. Since the motif is *tiresome*, the third blank must mean something close to "repetitive." *Redundancy* matches this. At the end of the paragraph, each character is *bribed...into giving up...beliefs*. So the first two blanks must mean "bribable." *Corruptibility* in the first blank and *venal* in the second both match this.

### 4. **illegal and unabashedly**

For the first blank, the clues "pirating software" and "downloading software from unapproved sources" describe unauthorized activities, so *illegal* is the best fit.

*Uncommon* and *difficult* are incorrect because the sentence says that "many people continue to do so." If people are doing something despite its illegality and "almost as if they were unaware that such acts amount to theft," you could describe them as acting *brashly*. *Unabashedly* is the best fit.

### 5. **insolvent**

The phrase "squandered his life's savings on unprofitable business ventures" tells you that the entrepreneur had no money left. The blank needs a word that means broke.

*Former* and *unlikely* are tempting choices, but they don't match broke. Eliminate them. *Eccentric* also doesn't match, while *perturbed* only describes the entrepreneur's possible feelings. *Insolvent* agrees with the clue, so keep it.

**6. eschew obfuscation, recondite, and a limpid**

The key clue is that the teachers urge students to “use clear, simple language.” The transition *instead* indicates that the phrase that goes into the blank will present an alternative to using clear, simple language, while the *and* indicates that the phrase will nevertheless agree with the clue. Something like “avoid difficult language” would be best. Difficult language is the alternative to clear, simple language, but the two phrases still agree because the difficult language is something to avoid. Thus, *eschew obfuscation* is best. *Eschew* means avoid, while *obfuscation* means the act of hiding the meaning of something. *Exscind obloquy* means to cut out critical language, while *evince ossification* means to show excessive rigidity, neither of which is appropriate here. The second blank needs a word that means difficult or obscure because teachers call into question the use of difficult vocabulary; *recondite* means obscure and hard to understand. *Recreant* means cowardly; *redolent* means fragrant. The final blank requires a word like *clear* because that is the type of language that “conveys one’s meaning so much more effectively.” *Limpid* means easily understood, so it is correct.

**7. A and C**

Choice (A) is supported because the passage says that myelin protects the brain’s circuitry. Choice (C) is supported by the fact that “as humans mature” increasing levels of myelin need to be produced. While the passage suggests that a lack of myelin leaves the brain vulnerable, that doesn’t mean that increasing the levels of myelin will reverse damage.

**8. B**

In the passage, *byzantine* refers to the “circuitry inside our nervous systems.” Previously, the circuitry is described as growing more complex, so you need to find a word with a similar meaning. Choice (A) is an alternate meaning for *byzantine*, but it is not supported by the passage. Choices (C), (D), and (E) do not have meanings similar to complex.

**9. D**

The argument concludes that large universities should utilize work-study students rather than administrative assistants. The premise is that a similar strategy realizes a cost savings at small colleges. This is an argument by analogy. Hence, the argument assumes that there are similar conditions at small colleges and at large universities. Choice (D) says that students at universities are just as qualified to take over the administrative roles as they are in small colleges. In other words, the administrative jobs at universities are not appreciably different than those at colleges. For (A), whether the practice would be of greater benefit to the small colleges is out of scope. For (B), whether large universities usually depend on small colleges for ideas is out of scope. For (C), the issue of non-work-study students is out of scope. For (E), whether anyone has an easier ride than anyone else is out of scope.

**10. A**

The first paragraph acts as an introduction to the rest of the passage. The author notes that in the nineteenth century “investments became increasingly speculative.” In the last paragraph, the author explains that due to fluctuating interest rates, the consol was popular with speculative investors. There is no support in the passage for (B), (C), or (D). Although the first paragraph provides a

historical framework, as suggested in (E), it does not provide a way “by which the nature of the nineteenth-century investor” could be understood.

11. **To address the problem, the British government instituted a sinking fund, using tax revenue to buy back the bonds in the open market.**

The second paragraph has five sentences, so this question has five answer choices. The third sentence begins, “To address the problem....” This is a clear indication that the sentence describes a solution to a problem. The correct answer is the third sentence.

12. **rarefied and meager**

What sort of atmosphere would make Mars the only planet “whose surface details can be discerned from Earth?” You need a word that means transparent or thin for the blank. *Viscous* takes you in the wrong direction, so toss it. The next choice, *ossified*, makes no sense; toss that one too. In contrast, *rarefied* works well, so hang onto it. Meanwhile, a *copious* atmosphere would definitely not be easy to see through, so cross out that choice. *Meager* fits nicely and agrees with *rarefied*, making those two the correct answers.

13. **adversity and tribulation**

The clue is “Using the hardships of the Joad family as a model.” Recycle *hardships* and use POE. Does *reticence* mean *hardships*? No; cross it out. *Adversity* works, so leave it. Do the same for the remaining choices. Only *tribulation* agrees with *hardships*, so that’s the other correct answer.

14. **a venerable and an august**

The blank is a description of the pyramid. The clue is “imposing structure” because this is the only other description of the pyramid. *Venerable* and *august* are the only words that match *imposing*.

**15. noisome and mephitic**

The word that fills the blank must describe “the stench of the livestock,” which is so malodorous that it drives the newcomers back to the city; it must mean something like, well, “stinky.” Both *noisome* and *mephitic* are appropriate choices. The other words don’t work; if you were tempted by *olfactory*, realize that it simply means “related to the sense of smell” and does not actually describe a particular scent.

**16. B**

Choice (B) correctly sums up the purpose of the passage. It explores the significance—the creation of a military aristocracy and chivalric culture—of a technological innovation—the stirrup. Choice (A) is incorrect because nothing in the passage suggests that this discussion has a basis in recent discovery. Choice (C) is too broad for the limited subject matter discussed. Choice (D) is too extreme. Choice (E) is incorrect because the physics, while important in connecting the stirrup to its social effects, isn’t really the point of the passage—and, in any event, the physics relates to cavalry, not artillery.

**17. E**

Choice (E) is supported by the passage because the sixth sentence suggests that the development of the barbed lance serves as an “unusually clear” marker. Choice (A) is incorrect because no additional subjects for research are brought up in the passage. Choices (B) and (C) require

comparisons beyond the scope of the information in the passage. No other technology, ancient or medieval, was discussed. Choice (D), finally, is an extreme overstatement. Although the stirrup increased the military value of the horse, nowhere is it suggested that it had previously been considered militarily insignificant.

**18. Stirrups unify lance, rider, and horse into a force capable of unprecedented violence.**

In this sentence, the author says that stirrups improve the ability of a lance and rider. This is an improvement on the issues discussed earlier when the author states that a “lance couched under the rider’s arm, unifying the force of rider and weapon, would throw its wielder backwards off the horse at impact.”

**19. D**

Choice (D) describes the organization of the passage. Choice (A) can be eliminated because the traditional definition is never amended. Choice (B) can be eliminated because the authorities do not support the traditional theory. Choice (C) can be eliminated because no new definition is proposed. Choice (E) can be eliminated because the “implications of the experiment” are not rejected.

**20. A and B**

The author’s dismissal of the traditional definition of randomness rests upon the premises that the results of the same probabilistic mechanism will all have the same likelihood of occurring and, as such, should be considered equally probable. The passage never mentions how the results of different probabilistic mechanisms relate to each other, so eliminate (C).

## Section 6

1. A

Solve for  $x$  in the top equation,  $\frac{x}{6} + 2 = \frac{6}{2}$ , by reducing the right side:  $\frac{x}{6} + 2 = 3$ . Subtract 2 from both sides, and multiply both sides by 6 to find that  $x = 6$ . Solve for  $y$  in the second equation,  $\frac{y}{3} + 2 = \frac{9}{3}$ , by reducing the right side:  $\frac{y}{3} + 2 = 3$ . Subtract 2 from both sides, and multiply both sides by 3 to find that  $y = 3$ . If  $x = 6$  and  $y = 3$ , Quantity A becomes  $\frac{5}{3}$ , and Quantity B becomes  $\frac{2}{6} = \frac{1}{3}$ .

2. A

Use the equation  $distance = rate \times time$ . Bob's time is 3 hours, and his rate is 44 miles per hour, so his distance is  $3 \times 44 = 132$  miles. Inez's time is 2.5 hours, and her rate is 50 miles per hour, so her distance is  $2.5 \times 50 = 125$  miles.

3. A

Plug In! Let's say that the height is 10, the depth is 20, and the width is 20. If the height is increased by 20%, the new height is 12. If the depth is decreased by 20%, the new depth is 16 and the width remains 20. The new volume is  $12 \times 16 \times 20 = 3,840$ . If you use those same numbers but make the changes by 40%, the new volume is  $14 \times 12 \times 20 = 3,360$ . Quantity A is greater. However, make sure you switch the numbers to check all possibilities. Make the height 20, the depth 10 and the width 20. If  $p$  is 20, the

volume of the new 3D figure is  $24 \times 8 \times 20 = 3,840$ . If  $p$  is 40, the volume of the new 3D figure is  $28 \times 6 \times 20 = 3,360$ . The quantities are the same regardless of what numbers you Plug In. The answer is (A).

4. **D**

Draw the figure. Triangle  $ABC$  has two adjacent sides,  $AB$  and  $AC$ , that are equal in length. The angles that are opposite these sides, angles  $B$  and  $C$ , are also equal. One common triangle that has two equal sides is the  $45 : 45 : 90$  triangle. If angles  $B$  and  $C$  were both 45 degrees, then their sum would be 90 and the answer would be (C). However, you know nothing about the third side of the triangle, so it is possible that this is equal as well, which creates an equilateral triangle with angles of 60. The sum of the angles in Quantity A is now 120. You cannot determine which is greater, so the answer is (D).

5. **A**

Translate:  $\frac{12.5}{100}k = 80$ , so  $\frac{1}{8}k = 80$ , and  $k = 640$ . Use this information in the other equation:

$$k = 640 = \frac{\gamma}{100} \times 80, \text{ and solve for } \gamma: \gamma = \frac{10}{8} \times 640 = 800.$$

Quantity A is greater than Quantity B.

6. **D**

Plug In values for each set. If  $P = \{1, 2, 3, 4, 5, 6, 7\}$  and  $Q = \{1, 2, 3, 4, 5, 6\}$ , the range of  $Q$  is smaller. Eliminate (B) and (C). If you change  $P$  to  $\{1, 2, 3, 4, 5, 7, 6\}$ , and  $Q$  to  $\{1,$

$\{2, 3, 4, 5, 7\}$ , the range of  $Q$  is equal to that of  $P$ . Eliminate (A), and select (D).

7. **A**

One way to attack this problem is to list  $F_1$  to  $F_{11}$ : 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40. Notice that  $F_6$  through  $F_{10}$  are included in both quantities, so focus on what's different. Quantity A is  $F_4 + F_5$  and Quantity B is  $F_{11}$ .  
Quantity A is  $19 + 22 = 41$ , and Quantity B is 40.  
Alternatively, you know that  $F_4$  has had 3 changes from  $F_1$ . So,  $F_4 = F_1 + 3(3) = 10 + 9 = 19$ .  $F_5$  has had 4 changes from  $F_1$ , so  $F_5 = F_1 + 3(4) = 10 + 12 = 22$ .  $F_{11}$  has had 10 changes from  $F_1$ , so  $F_{11} = F_1 + 3(10) = 10 + 30 = 40$ .

8. **C**

Plug In a number for  $n$ . Let  $n = 5$ . Because  $5 \times 6 = 30$ , the product is 30. Add 24 to get 54. Divide by 3 to get 18 as your target. If you Plug In 5 for  $n$  in each answer choice, only (C) matches the target:  $2n + 8 = 2(5) + 8 = 18$ .

9. **10**

If the average of  $a$  and  $b$  is 10, then  $a + b = 20$ . Likewise, if the average of  $c$  and  $d$  is 7, then  $c + d = 14$ . If the average of  $a$ ,  $b$ , and  $c$  is 8, then  $a + b + c = 24$ . Because  $a + b = 20$ ,  $c = 4$ . If  $c = 4$ , then  $d = 10$ .

10. **C**

To find the area of a square, you need the length of a side. To find a side, find the distance between two vertices. If  $A$  is at  $(3, 7)$  and  $B$  is at  $(3, 12)$ , then the length of a side is equivalent to the difference in the  $y$ -coordinates:  $12 - 7 = 5$ . So, side  $AB$  has a length of 5. Square this to find the

area:  $5^2 = 25$ . The fact that there are variables for the  $y$ -value of points  $C$  and  $D$  is irrelevant to solving this problem.

11. **B**

Get Dylan's median by putting his weekly sales into increasing order and finding the middle value. Dylan's set is  $\{2, 3, 9, 10\}$ , and his median is the average of 3 and 9, or 6. Next, do the same thing for Peter's sales numbers. Peter's set is  $\{4, 4, 6, 10\}$ , so his median is the average of 4 and 6, which is 5. The difference between the medians is  $6 - 5 = 1$ .

12. **A**

Order doesn't matter, so remember you must divide by the factorial of the number of decisions made. For the first topping, you have 6 options. For the second topping, you have 5 options. For the third topping, you have 4 options.

$$\frac{6 \times 5 \times 4}{3 \times 2 \times 1} = 20, \text{(A)}.$$

13. **E**

Because you know the perimeter of the rectangle, you can figure out that both  $BC$  and  $AD = 5$ . Thus, the area of the rectangle is  $3 \times 5 = 15$ . The area of the triangle is therefore

also 15. Because the area of a triangle =  $\frac{1}{2}bh$ , you can put in the values you know to find  $15 = \frac{1}{2}(b \times 5)$  and solve for the base, which is 6.  $LM$  is the base of the triangle, so  $LM = 6$ .

14. C

From 1981 through 1984, the ratings for Program  $y$  were higher than they were in the previous year.

15. E

There were 95 million times 80 percent, or 76 million, television households in 1983. Thirteen percent of them viewed Program  $y$ . 76 million times 13 percent (0.13) is 9.88 million, or approximately 10.

16. A

The problem asks for the number of households that viewed both Program  $x$  and Program  $y$ , so this is a group problem. Use the group formula, which is Total = Group 1 + Group 2 - Both + Neither. Evaluate the information in the graph and the question stem to determine the values for the variables in the formula. The total is provided by the question stem, which states there were 80 million television households, so Total is equal to 80. Because this problem asks for approximates, choose numbers that are easy to work with. In 1984, approximately 15% of television households viewed Program  $x$ , so there were  $0.15 \times 80 = 12$  million households who viewed Program  $x$ . Therefore, Group 1 is 12. In 1984, approximately 14.5% of television households viewed program  $y$ . This is close to

15%, so use 15% again to determine that approximately  $0.15 \times 80 = 12$  million households who viewed Program  $y$ . Therefore, Group 2 is 12. The problem states that 65 million television households viewed neither Program  $x$  nor Program  $y$ , so Neither is 65. Now insert all of these numbers into the group formula and solve for the value of Both. So,  $80 = 12 + 12 - \text{Both} + 65$  and  $80 = 89 - \text{Both}$ , which means that  $-9 = -\text{Both}$  and  $\text{Both} = 9$ . Because the value for Program  $y$  was rounded up from 14.5% to 15%, this number is greater than the actual number. The only number less than 9 is 8.6. The correct answer is (A).

17. **A**

Plug In the Answers, starting with (C). If Susan owns 146, Gavin owns 246, and together they own 392. Matt and Angela together would own 784, and the total number of houses would be 1,176. Choice (C) is too large, so also cross off (D) and (E). Try a smaller number. For (A), if Susan owns 46, Gavin owns 146, and together they own 192. Matt and Angela together would own 384, and the total number of houses would be 576.

18.  $\frac{7}{45}$

Plugging In is a great way to tackle this question. Multiply the denominators of  $\frac{1}{4}$ ,  $\frac{1}{5}$ , and  $\frac{1}{3}$  together to get 60, which will be an easy number with which to work. Make the total number of cars 60.  $60 \times \frac{1}{4} = 15$  sports cars, and  $60 - 15 = 45$  sedans. The number of red cars is  $60 \times \frac{1}{5} = 12$ . The

number of red sports cars is  $15 \times \frac{1}{3} = 5$ , which means that there are  $12 - 5 = 7$  red sedans. The fraction of the sedans that are red is  $\frac{7}{45}$ .

**19. A and B**

Plug In the Answers. Start with one of the middle values, such as (C). If there are 18 grape candies, then there are 40 total candies in the jar. The probability of selecting an orange candy is  $\frac{8}{40}$ , or 20 percent. The question states that the probability of selecting an orange candy is greater than 20 percent, so (C) cannot work. Values larger than 18 also do not work because when the denominator becomes larger than 40, the probability becomes less than 20 percent. The only choices that could work are (A) and (B).

**20. E**

Plug In for  $k$ , and let  $k = 3$ .  $CE$  is a radius and also half of the square's diagonal. If  $k$  is 3, then  $CE$  is 3, and the diagonal is 6. The diagonal of a square is also the hypotenuse of a 45:45:90 triangle. To get the hypotenuse from a side, multiply by  $\sqrt{2}$ ; so, to get a side from the

hypotenuse, divide by  $\sqrt{2}$ . The sides of the square are each  $\frac{6}{\sqrt{2}}$ . To find the area, square the side to find  $\left(\frac{6}{\sqrt{2}}\right)^2 = \frac{6^2}{\sqrt{2}^2} = \frac{36}{2} = 18$ . Plug  $k = 3$  into the answers to find one that yields your target of 18. Choice (E) yields the target of 18.

# Appendix: Accommodated Testing

If you plan to request accommodations, you need a copy of the Testing Accommodations Request Form, which is part of the Bulletin Supplement for Test Takers with Disabilities or Health-Related Needs. The Bulletin Supplement is at [www.ets.org/s/disabilities/pdf/bulletin\\_supplement\\_test\\_takers\\_with\\_disabilities\\_health\\_needs.pdf](http://www.ets.org/s/disabilities/pdf/bulletin_supplement_test_takers_with_disabilities_health_needs.pdf), or you can request it by phone at 866-387-8602 (toll-free for test takers in the United States, American Samoa, Guam, Puerto Rico, U.S. Virgin Islands and Canada) or 609-771-7780. You can also write to:

ETS Disability Services  
P.O. Box 6054  
Princeton, NJ  
08541-6054

Available accommodations include the following:

- extended testing time (There are no untimed tests.)
- additional rest breaks
- test reader
- scribe
- sign language interpreter for spoken directions only
- screen magnification
- large print
- trackball
- audio recording
- braille

This is not an exhaustive list. ETS will consider any accommodation requested for a disability or medical condition.

Processing a request for accommodations takes time, so you should submit your request as early as possible (at least six weeks before you intend to take the test). The request must include the following:

- a completed Computer-Based Test (CBT) Authorization Voucher Request form and the proper test fee
- a completed Testing Accommodations Request Form
- a Certification of Eligibility: Accommodations History (COE), which verifies your use of accommodations at your college, university, or place of employment. In some cases, the COE is sufficient to document a disability and can be used in place of sending full documentation to ETS. If you are eligible to use the COE in this way, the documentation on file with the college, university, or employer must meet all ETS documentation criteria. Please see the Bulletin Supplement for details.
- documentation (unless you are using the COE as described above)
  - If you have a psychiatric disability, physical disability or health-related need, traumatic brain injury, or autism spectrum disorder, you must submit documentation.
  - Documentation must also be submitted if your disability has been diagnosed within the last 12 months, regardless of the accommodations you are requesting.

The documentation you submit must meet the following criteria:

- clearly state the diagnosed disability
- describe the functional limitations resulting from the disability
- Be current: within the last five years for a learning disability or autism spectrum disorder, last six months for a psychiatric or physical disability or a health-related need, or last three years

for other disabilities. Documentation of physical or sensory disabilities of a permanent or unchanging nature may be older if it provides all of the pertinent information.

- include complete educational, developmental, and medical history relevant to the disability
- include a list of all test instruments used in the evaluation report and all subtest, composite, and/or index scores used to document the stated disability
- describe the specific accommodations requested
- state why the disability qualifies you for the requested accommodations
- Be typed or printed on official letterhead and be signed and dated by an evaluator qualified to make the diagnosis. The report should include information about the evaluator's license or certification and area of specialization.

If you have a learning disability, ADHD, a physical disability, a psychiatric disability, a hearing loss or visual impairment, a traumatic brain injury, or an autism spectrum disorder, refer to the ETS website at [www.ets.org/disabilities](http://www.ets.org/disabilities) for specific documentation.

ETS will send you an approval letter confirming the accommodations that have been approved for you.

- **National Paper-Based Testing (PBT)**

When you receive your approval letter, you are registered. The approval letter will identify the testing location and test administrator. If the testing center cannot accommodate your request on the scheduled testing date, you will be contacted by the test administrator to arrange an alternate test date.

- **Computer-Administered Testing (CBT)**

The approval letter will include instructions that you must follow to schedule your test. **Do not schedule a CBT test until you receive your approval letter.** When scheduling

your test, be prepared to provide the authorization/voucher number and the information contained in the letter.

- **Alternate-Format Testing**

A representative from ETS Disability Services will contact you to confirm the accommodations approved for you and to schedule your test.



# BONUS MATERIALS

## GRE INSIDER

### *Admissions and Program Advice*

While *Cracking the GRE* will prepare you for your exam, the *GRE Insider* will help you navigate what comes next. The bonus materials included here contain invaluable information about degree options, application considerations, and assorted fields of study. We wish you the best of luck on your studies and preparation for graduate school.

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## Part 1

# Beyond the GRE: Graduate School and More

Graduate schools continue to draw more applicants, more enrollees, and more graduates in almost every field, with a few exceptions. The most important thing for a prospective graduate student to know is that there really is no simple, cookie-cutter way to describe graduate school. While many elements from program to program are similar, like taking classes, writing papers, conducting lab or field work, studying advanced theory and sitting for exams, the category is so broad that until now, we have not found a graduate school guide that does it justice. The goal of this *GRE Insider* is to pull back the covers on specific graduate program areas, examine the data and trends in each area (as well as associated careers), and highlight opportunities or things to think about before making this critical life choice.



#### Premium Content

To learn more about graduate school admissions, check out your Student Tools for articles, advice, and lots more.

One of the best ways we've found to describe graduate school is as a critical stage of career development. In fact, for many careers discussed in this guide, an advanced degree is a requirement in order to get a job in that field. While some might joke that getting an advanced degree is a great way to put off getting a "real job," the reality is that graduate school programs are designed by professionals and researchers in each field to prepare students for the day-to-day demands and challenges of that specific profession.

For example, there are many master's programs considered to be "professional" because they are designed not to prepare graduates for further study necessarily, but to step right into a recognized

profession. These jobs typically require some kind of certification or licensure that is regulated by state law, as is commonly the case for counselors, engineers, librarians, social workers, teachers, and therapists. In such cases, master's programs are often geared toward and will include elements that specifically prepare students for state-regulated exams.

Other master's programs are also considered professional, not because they launch students into careers in regulated professions, but because they prepare students for jobs that require a high level of proficiency in a field that has a fairly well-defined range of accepted practices. Examples of these fields include business management, government, information management, journalism, and museum curation. There are still other master's programs designed to prepare students for either further study in the same field or for careers in which their general skills (though perhaps not their full range of content knowledge) are applicable. Examples of these programs can be found in the liberal arts disciplines, such as humanities and social sciences.

Doctoral programs prepare individuals to become experts in a particular field but also prepare graduates for specific career paths. Most PhD programs, for example, are designed explicitly to prepare students for careers as professors in higher education institutions or as researchers in the private, public, or nonprofit sectors. Other doctoral programs, such as those granting a Doctor of Psychology and Doctor of Education, are designed to produce practitioners in selected professions, such as counseling or education. Given that the typical length of a doctoral program is in the range of five to eight years (depending on the discipline), it's even more important for prospective doctoral students to understand what kind of career they're preparing for than it is for prospective master's students.

Whatever your reasons for reading this guide, we hope it gives you a better sense of which path to take for success in your future career. Good luck!



### Tune In Online

Your Student Tools contain a bunch of helpful videos that cover content review for the GRE, plus vocab strategies, how to guidelines, and much more!

## Part 2

# Introduction to Graduate School

The decision to apply to graduate school is one that requires careful thought about your career goals, awareness of the different paths to reach your goals, and an understanding of the job market and prospects. In other words, will your degree help you reach your goals, and ultimately pay off?

For many careers in the graduate arts and sciences disciplines, obtaining a master's degree or a PhD is required to be considered for certain jobs. An advanced degree can also provide an edge in increasingly competitive industries or for the best jobs in fast-growing industries.

## SELECTING A PROGRAM

Programs come in many shapes and sizes. Rather than blitzing every program with an application, it is best to do your research, focus your attention, and apply to carefully chosen schools. In some fields, it may be important to consider the prestige of the institution or even the professor with whom you want to conduct your research. Other fields that require state-based licensure might cause you to consider the location of your program for the best possible preparation.



### Expert Advice

Visit [PrincetonReview.com/GRE](http://PrincetonReview.com/GRE) for tried-and-true GRE and graduate school advice and information.

It might be helpful to divide potential graduate schools into categories based on your chances of admission, just as you did when applying to undergrad schools. Select two schools you're fairly

certain will accept you, two with whom you have a fighting chance, and one school that you'll get into if lightning strikes. This is your target list; add more schools only if you have the time and money to do so.

Be sure to include making personal connections as part of your research process. While you can gather a lot of good information about programs online, make every effort to pick up the phone or go visit a school on your list. If you are going to spend three to six years in your program, it's important to make connections beforehand with the professors, ask questions, and find out how your work (and goals) will be supported. Likewise, talk to graduate students in the program for a better picture of the atmosphere. It may be the only way to find out about the things you can't learn about online.

## DEGREE OPTIONS

Do you need a master's or a PhD? Generally speaking, if you want to conduct research and development or teach in a postsecondary setting, a PhD is required.

### PhD Degree

PhD programs are designed to give you extensive expertise in a specialized field, training you to pursue a life in academia as a professor or researcher (although not all candidates follow this path). Typically, you spend five to six years earning your degree with the first three years focused on required coursework, writing a dissertation proposal, and developing relationships with your professors. In years four through six, you take fewer (or no) courses and focus on writing your dissertation, which is supposed to constitute a new and meaningful contribution to knowledge in your field.

Some fields offer alternative terminal degrees to the PhD. For example, engineering offers a Doctor of Engineering Science (EngScD), while a Doctor of Psychology (PsyD) is a practitioner-based degree with less focus on research.

## **Master's Degree**

Just like in college, first-year master's students take courses to fulfill degree requirements. However, the workload is heavier, the course topics are more specific, and much more is expected of you than in college.

At the beginning of the master's program, you'll choose (or be assigned) a faculty member who will serve as your advisor. This person will help you develop an academic focus and potential topics for your thesis or final project.

As a second year master's student, you decide on your research focus and—in one semester or two—complete your master's thesis or final project. If you show promise, you may be encouraged to continue toward a PhD.

Fields seeing more job applicants than job opportunities can experience growth in those opting for a PhD instead of a master's degree. Be sure to consider whether the programs you choose offer master's only or also have PhD options. Remember that within some programs, you can enroll for a master's degree and later choose to pursue a PhD if you are so inclined; conversely, you can enroll in a PhD program and leave after earning your master's if the academic lifestyle fails to entice you further.

## **LETTERS OF RECOMMENDATION**

The value that an objective third party can provide gives the application reviewing committee great insight into your value as a candidate for their program beyond the test scores, GPA, and your

own personal statement. Most programs require three letters of recommendation, so consider that when selecting a recommender, much weight will be given to recommendations from academics in your field. However, practice-oriented programs, particularly ones that value fieldwork as part of your application, would likely value recommendations from the professionals you worked with during your internship, job, or fieldwork. If in doubt about recommendations, consider what kinds of input your audience, in this case the admissions committee, would most like to help them make their decision, and don't be afraid to ask them either.



#### GRE for Business School?

More and more Business Schools are accepting GRE scores for admissions consideration. Check out *The Best 294 Business Schools* from The Princeton Review to learn more.

## ESSAYS

Putting yourself in the shoes of the admissions committee is a good rule of thumb for essays while research is the best way of preparing to actually write. Of course it's important to talk about the research you would like to pursue in a graduate program, but make sure you are able to demonstrate a solid understanding of what the school has to offer. Research their program strengths as well as their professors' research and publications; the more your areas of interest align with the program's strengths, the easier it will be to write your essay. Also, be as detail-oriented as possible.

## WORK SAMPLES AND INTERVIEWS

Remember that the application and admission process is all about giving the admissions committee the most complete picture of you and your work as possible in a relatively short amount of time. Work samples and interviews are a great way to highlight your strengths as well as make yourself stand out from other applicants.

Reading through the application requirements early will help you pull together any necessary requirements, such as a portfolio or audio or video samples of your work (for areas like performing arts). Some programs will require or recommend an interview, so don't be afraid to practice! Talking about your goals for graduate school with others, and being able to think on your feet will give you an edge once you sit down for an interview.

## Part 3

### Graduate School Programs By Type

# **ART, DESIGN, AND ARCHITECTURE**

Creativity and artistic expression come to mind as the most important skills for careers in art and architecture. This is especially true in the studio arts or dramatic and theater arts. So why obtain a graduate degree at all—can't I just paint, act, or play music?

Well, yes, but...just as a graduate degree in any other field provides relevant training and detailed knowledge required for a job in the field, an advanced degree in the arts gives students an opportunity to develop, refine, and practice their art with direct access to the resources, materials, and support they need to grow.

And for art historians, preservationists, conservators, as well as art and film critics, a balanced background of studying and creating the work provides a full preparation. Many of these programs focus on history, foreign languages, and cultural studies.

For the various fields within architecture, there is a unique “marrying” of creative design and construction with the cultural and social dynamic of the areas in which architects work, whether it is a streetscape, a renovation of a historic building, or designing a new home. Programs require that applicants have a year of college-level math, such as calculus or physics.

## **Degrees Offered**

All areas of art and architecture have experienced growth in advanced degrees conferred, most notably in architecture and related fields. For many fields in this area, the terminal degree is a master's degree, particularly for those offering the Master of Fine Arts (MFA).

In order to be a licensed architect, one must possess a BArch (a five-year undergraduate program) or MArch. While a MArch takes about

three years to complete, those entering the program with a BArch can often complete the program much faster. A Master's in Interior Architecture (MIA) or Landscape Architecture (MLA) generally take two to three years to complete, depending on undergraduate experience, and culminate in a thesis as well as oral and written exams.

While students in graduate programs for studio and performing arts receive the terminal degree in their field (MFA), many choose graduate school because it provides a unique and focused opportunity in which to develop themselves as artists. Grad school provides the necessary preparation, resources, and exposure to dramatically influence one's success as an artist, writer, performer, or musician. Most programs last two to three years and culminate in, among other things, a presentation of work produced.

#### Quick Snapshot: Art and Architecture

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	DEGREE OPTIONS	APPLICATION CONSIDERATIONS
<b>Architecture</b>	Master's: 112 Doctorate: 23	MArch	Architecture degree or relevant coursework; portfolio of undergraduate work
<b>Art History, Criticism &amp; Conservation</b>	Master's: 114 Doctorate: 55	MA, MS Conservation PhD	Study of at least one foreign language; classes in studio art or art history helpful
<b>Drama &amp; Dramatics/Theater Arts</b>	Master's: 143 Doctorate: 32	MA PhD	Portfolio of dramatic work
<b>Industrial Design</b>	Master's: 19 Doctorate: 1	MA, MFA (terminal degree)	Undergraduate degree or equivalent coursework in industrial design
<b>Interior Architecture</b>	Master's: 13 Doctorate: 0	MIA	Bachelor's degree in a related field such as architecture, fine arts, or art history
<b>Landscape Architecture</b>	Master's: 58 Doctorate: 2	MLA PhD	Courses in calculus and physics; work experience preferable
<b>Playwriting and Screenwriting</b>	Master's: 26 Doctorate: 0	MFA	One full-length dramatic writing sample
<b>Studio Arts</b>	Master's: 319 Doctorate: 5	MFA (terminal degree)	Portfolio demonstrating applicant has been actively practicing his/her art for some time

You can find more detailed information to guide you on the right path from these trade organization websites.

## TRADE ORGANIZATIONS YOU SHOULD KNOW

American Film Institute <a href="http://afi.com">afi.com</a>	dedicated to advancing and preserving the art of the moving image
American Institute of Architects <a href="http://aia.org">aia.org</a>	news, conferences, education, government affairs and everything else an architect should know
American Society of Landscape Architects <a href="http://asla.org">asla.org</a>	information on seminars, jobs, and history of the profession
National Association of Dramatic and Speech Arts, Inc. <a href="http://nadsainc.com">nadsainc.com</a>	information for all dramatics professionals, including performers, educators, administrators, and students
National Trust for Historic Preservation <a href="http://savingplaces.org">savingplaces.org</a>	dedicated to saving historic buildings, neighborhoods, and landscapes that form communities
Writers Guild of America, West <a href="http://wga.org">wga.org</a>	offers tools for writers of all genres and professions

## Typical Admissions Requirements

Despite the wide range of degrees in art and architecture, all of them generally require a portfolio as part of the application. Many of the degree programs in art and architecture are directly linked to

creative work, meaning that a portfolio is the best way for the admissions committee to review the demonstrated ability of the applicants.

Here are some examples:

- Acting: live auditions or performance tapes
- Architecture/Interior Architecture: portfolio of work, typically created during undergraduate study
- Graphic Design: portfolio of work
- Landscape Architecture: portfolio of work that can include designs, drawings, and photography
- Playwriting/Screenwriting: at least one full-length dramatic writing sample
- Studio Arts: samples, photographs of work

For architecture programs, it is often required to have a bachelor's degree in the same or related field while many also require one year of undergraduate physics and mathematics, such as calculus.

## **General graduate school requirements:**

- bachelor's degree from an accredited college or university
- official transcript(s) from all colleges or universities attended
- GRE General Test scores (different programs require different minimum scores)
- TOEFL score (if necessary)
- academic letters of recommendation

- letter of intent or statement of purpose
- application forms
- application fee

### **Some degree programs will also require:**

- interview or audition
- supplemental essays or writing sample
- proficiency in a foreign language (art history or architectural history)
- portfolio of work, including audio, video, pictures, and samples of work

## **BIOLOGY AND LIFE SCIENCES**

Biology is a natural science that involves the study of life and living organisms. There are many subdivisions of biology, categorized by the scale and method with which they approach the subject: biochemistry, molecular biology, cellular biology, physiology (organs, tissues, organ systems), and ecology. Within these subdivisions, one typically focuses on either basic or applied research.

Much of the grant-funded basic research serves as a starting point for applied research, which finds practical applications of biological knowledge in areas as diverse as new drugs, treatments, and medical diagnostic tests, increased crop yields, and new biofuels.

A career path for those who are interested in studying biology and life sciences is pharmacology. Pharmacologists are often thought of in tandem with toxicologists, as both research the effects of

chemicals on cells. However, toxicologists examine the effects of poisons on cells while pharmacologists remain focused on drug-related chemical interactions.

Advanced degrees are required for many jobs in this area. A PhD is required for researchers seeking funding and postsecondary teachers, while a master's degree can also be useful in the sales, marketing, and publication aspects of biological sciences.

## Degrees Offered in Biology and Life Sciences

An MS in biology and life sciences generally takes two to three years to complete. Master's programs culminate in a written examination, as well as a thesis with oral defense. A PhD is generally required for those expecting to conduct independent research, especially in academia, or for high-level administrative positions. You can expect to spend five to six years of full-time study and research in a PhD program.

Some programs, like neuroscience and toxicology, are inherently interdisciplinary and combine disciplines with other graduate departments. Those that offer master's degrees in neuroscience are often steps toward PhDs or combined MD/PhDs. Likewise, a master's degree in toxicology is rarely seen as terminal—most students spend another four plus years earning their PhD.

## Quick Snapshot: Biology and Life Sciences

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	APPLICATION CONSIDERATIONS
<b>Biochemistry</b>	Master's: 144 Doctorate: 147	GRE Subject in Biology, GRE Subject in Chemistry
<b>Biology, Biomedical Sciences</b>	Master's: 478 Doctorate: 233	Coursework in biology, GRE Subject Test in Biology
<b>Ecology</b>	Master's: 50 Doctorate: 46	Coursework in sciences, especially upper level biology or environmental science
<b>Molecular Biology</b>	Master's: 83 Doctorate: 110	Some schools require a minimum GPA and undergraduate coursework in organic chemistry, physics, and calculus.
<b>Neuroscience*</b>	Master's: 735 Doctorate: 103	If not a neuroscience major, then coursework in natural sciences
<b>Toxicology</b>	Master's: 40 Doctorate: 43	Undergraduate major or significant course work in biology, chemistry, or biochemistry
<b>Zoology/Animal Behavior</b>	Master's: 26 Doctorate: 25	Emphasis placed on research interest and work experience; some require GRE Subject Test in Biology

\* Neuroscience is interdisciplinary, and programs and coursework may be found in psychology, molecular biology, biochemistry, and others.

You can find more detailed information to guide you on the right path from these trade organization websites.

### TRADE ORGANIZATIONS YOU SHOULD KNOW

American Board of Clinical Pharmacology <a href="http://abcp.net">abcp.net</a>	Recently created organization that administers an optional accreditation for clinical pharmacologists.
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American Institute of Biological Sciences  <a href="http://aibs.org">aibs.org</a>	A membership organization advancing research, education, and public policy issues for the biological sciences. Publishes a peer review journal.
Society for Neuroscience  <a href="http://sfn.org">sfn.org</a>	World's largest organization of scientists and physicians devoted to understanding the brain and nervous system. Includes an extensive Higher Education and Training section.
Association of Zoos and Aquariums  <a href="http://aza.org">aza.org</a>	Links to job opportunities, conferences, and professional training opportunities.
Society for Human Ecology  <a href="http://societyforhumanecology.org">societyforhumanecology.org</a>	The society is an “international interdisciplinary society” whose mission is to promote “the use of an ecological perspective in research and application.”
Society of Toxicology  <a href="http://toxicology.org">toxicology.org</a>	Plenty of information about schools, degrees, grants and fellowships, links to career information, and other resources.

## Typical Admissions Requirements

While many programs in biology and biological sciences might not require a specific major for admission, if they require a GRE Subject Test in either Biology or Biochemistry, Cell and Molecular Biology, then an undergraduate major or significant coursework is typically the best preparation.

## General graduate school requirements:

- Bachelor's degree from an accredited college or university
- Official transcript(s) from all colleges or universities attended
- GRE General Test scores (different programs require different minimum scores)
- TOEFL score (if necessary)
- Academic letters of recommendation
- Letter of intent or statement of purpose
- Application forms
- Application fee
- Interview

### **Some degree programs will also require:**

- GRE Subject Test: Biology
- GRE Subject Test: Biochemistry, Cell and Molecular Biology
- Curriculum vitae
- Research statement (as part of letter of intent)

## **COMMUNICATIONS, JOURNALISM, AND MEDIA STUDIES**

Radio, TV, Internet, smartphones, and tablets...the evolution of media consumption has driven dramatic changes and opportunities in the field of communications, journalism, and media studies.

Companies such as Google, Facebook, YouTube, Tumblr, and Twitter, along with easy-to-use technology and publishing tools (digital cameras, free blogging sites) give anyone with access to a computer or smartphone the opportunity to reach an audience with their message. Twenty-four-hour news channels (and their companion websites or social media outlets) mean that news and information are pumped out at an unprecedented speed and volume.

Just as important in this evolution are the communications professionals who either create, or react to, the news on behalf of their employers. These days, it goes beyond for-profit companies and government organizations to include nonprofits, school districts, and yes, celebrities and personalities.

So what distinguishes an amateur from a professional? An advanced degree in communications, journalism, or media studies provides graduate students with the skills they need to be effective and educated resources, honing any raw skills and nurturing a passion for the field. With rapidly changing technologies and new social media outlets, students can learn the latest trends and technologies to understand how they can work together for the biggest impact. A graduate degree can also give professionals in this area of study the solid background and experience to strike out on their own with more credibility.

## Degrees Offered

The few PhDs pursued in this field are for postsecondary teaching and research, though there has been a small surge in PhDs with 31-percent growth between 2008–2009 and 2013–2014. The majority of the 32,000 enrollees in this discipline pursue a master's degree.

Though programs vary by institution, if you want to report the news (writing, broadcasting, or publishing), you should probably look at journalism programs. If you want to study forms of communication,

methods, culture, or media, then you should probably look into communications programs. Again, research both disciplines (sometimes housed in the same department) to determine the best path for your career.

The Master of Arts tends to be more common than the Master of Science in journalism, and the differences between programs vary from institution to institution. Remember, a broad knowledge of history and current events strengthens the quality of your work in the field while perseverance and experience tend to play a big role in making a good journalist great. Try to find programs that teach more than just core skills and feature a depth of writing experiences and frequent fieldwork. Some programs also provide the opportunity to focus in a particular subject area such as health care, science, business, etc. Master's programs in communications also offer a range of foci including advertising and marketing, politics, law, public policy, and the global and cultural aspects of communication in society or within an organization.

Depending on your career goals and your industry of preference, combined or interdisciplinary degrees can be found at many institutions, depending on where they house their communications, journalism, and media studies programs.

MA Journalism (2–3 years)

MS Journalism (1–2 years)

MA Communications or Mass Communications (2–5 years)

BA / MA Journalism (5 years, starting junior year of college)

PhD Communications or Journalism (5–7 years, including dissertation)

### Quick Snapshot: Communications, Journalism, Media Studies

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	DEGREE OPTIONS	APPLICATION CONSIDERATIONS
Communications and Media Studies	Master's: 101 Doctorate: 24	MA PhD	PhD candidates need experience; others do not but background courses a bonus
Journalism	Master's: 77 Doctorate: 6	MA, MS PhD	Background courses and sample work helpful; required for PhD candidates
Mass Communications/Media Studies	Master's: 58 Doctorate: 0	MA, PhD	
Radio and Television	Master's: 23 Doctorate: 0	MA PhD	

You can find more detailed information to guide you on the right path from these trade organization websites.

TRADE ORGANIZATIONS YOU SHOULD KNOW	
The Associated Press <a href="http://ap.org">ap.org</a>	The AP is the momma bear of all journalistic agencies.
The Poynter Institute <a href="http://poynter.org">poynter.org</a>	From its “Mission & History” statement: “The Poynter Institute...is the world’s leading instructor, innovator, convener and resource for anyone who aspires to engage and inform citizens in 21st Century democracies.”
American Society of Magazine Editors <a href="http://magazine.org/asme">magazine.org/asme</a>	The American Society of Magazine Editors is the professional organization for print and online magazine editors. Its website lists jobs, hosts discussion boards, and offers courses for junior editors, among other things.
National Communication Association	The National Communication Association advances communication as the discipline that studies all forms, modes, media, and

<a href="http://natcom.org">natcom.org</a>	consequences of communication through humanistic, social scientific, and aesthetic inquiry. Find resources, publications, and careers on their website.
National Press Photographers Association  <a href="http://nppa.org">nppa.org</a>	Promotes photojournalism with competitions, workshops and seminars, and job listings.

## Typical Admissions Requirements

Experience in journalism, whether in the classroom or on the streets, is a plus but not required. Writing samples from undergraduate study, undergraduate GPA, recommendations, essays and, in some cases, GRE scores are required. While undergraduate prerequisites vary, most programs require a bachelor's degree in a related field.

### General graduate school requirements:

- Bachelor's degree from an accredited college or university
- Official transcript(s) from all colleges or universities attended
- GRE General Test scores\* (different programs require different minimum scores)
- TOEFL score (if necessary)
- Letters of recommendation
- Letter of intent or statement of purpose
- Academic or professional writing samples

- Application forms
- Application fee

\*Not required for all programs

## COMPUTERS AND TECHNOLOGY

The field of computers and information technology includes three main disciplines: computer science, information systems, and information technology. The fields do overlap in terms of certain training and curriculum. A bachelor's degree is sufficient for many careers in these fields, but for those looking to advance within their organizations, manage teams, or teach, a graduate degree boosts your potential. In addition to Master of Science degrees, one might consider an MBA with a focus in technology.

Graduate programs focus on both theoretical frameworks, along with applied research and lab work. Because this is a rapidly changing field, a strong theory-based knowledge coupled with a practical orientation keeps students not only current, but in some cases on the cutting edge of advancing new technologies.

Computer scientists contribute to new technologies, including interactive multimedia and virtual reality systems. Time is divided between class and lab work to ensure that students are equipped with the necessary skills in software development, systems development, and new computer systems creation.

Information technology covers the entire spectrum of computer-based content, and those who undertake study in this field will learn about it all. Courses cover computer hardware and software; how to view and send information by computer plus how to adapt, control, and improve the experiences had by computer users. In addition, graduate students will learn how to create and modify the very systems that transmit the information—and how to best distribute

that information to the target audience. Study will also include web-based computer applications, the fundamentals of e-commerce, the importance of web security, ethical issues, and finally, how information technology affects business and society.

Those interested in more of a management-based career might want to consider a graduate program in management information systems (MIS). Studies in MIS will include management strategies and theories, how management can best use information systems and applications and security. You'll also learn how skillful use of information systems can lead to business solutions, help with decision making and ways to improve the corporation.

## **Degrees Offered in Computers and Technology**

Advanced degrees in computer science include either the Master of Arts or Master of Science, and of course, the PhD. Graduate students study broad, theoretical frameworks and then exercise that knowledge through lab work. Many who choose to pursue a doctorate select a concentration. Be sure to look for programs that produce and contribute to the latest research in computer science given that it is a rapidly changing field. Degree programs related to computer science include:

- Information Science
- Information Technology
- Management Information Systems (MIS)
- Systems Engineering
- Web/Multimedia Management

Graduate work in information technology covers everything from hardware and software to managing and transmitting the information as well as the end-user experience. Your hands-on

graduate work culminates in an MS in information technology or information technology and management. Students wishing to teach or pursue more research can advance with a PhD program in either information technology or another computer-related field. For those interested in a more management-based IT career, consider an MS in management information systems (MIS), which prepares graduate students for management careers in technology. Alternatively, one could pursue an MBA with a focus or concentration in information systems.

#### **Quick Snapshot: Computers and Technology**

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	DEGREE OPTIONS	APPLICATION CONSIDERATIONS
<b>Computer Science</b>	Master's: 432 Doctorate: 274	MA, MS PhD	Higher math and computer programming courses
<b>Information Science</b>	Master's: 128 Doctorate: 26	MS PhD	Computer sciences background
<b>Information Technology</b>	Master's: 95 Doctorate: 11	MS IT, MS ITM PhD	Proficiency in computer science, basic computer programming, and higher mathematics
<b>Computer Information Systems</b>	Master's: 122 Doctorate: 5	MS, CIS PhD	Accounting, statistics, calculus, and computer programming; some require work experience

You can find more detailed information to guide you on the right path from these trade organization websites.

#### **TRADE ORGANIZATIONS YOU SHOULD KNOW**

Association of Information Technology Professionals <a href="http://aitp.org">aitp.org</a>	Education, peer support, and information for IT professionals in government, industry, and academia.
HDI	The largest association for IT service and support professionals produces numerous

<a href="http://thinkhdi.com">thinkhdi.com</a>	publications, hosts several symposiums and conferences each year, and certifies hundreds of help desk and service desk professionals each month.
Society for Information Management <a href="http://simnet.org">simnet.org</a>	Provides information and a community of shared experience among professionals.
TechAmerica <a href="http://TechAmerica.org">TechAmerica.org</a>	Public sector and public policy department of CompTIA, the IT industry trade association.

## EDUCATION AND TEACHING

Many enter the teaching profession in order to make that connection with children or young adults where the proverbial light bulb goes on and the student “gets it.” While the monetary rewards in teaching may not be substantial, the personal satisfaction in helping students develop intellectually and socially is a driving force behind the decision to teach.

Thanks to projected population growth, enrollment increases are expected across all grade levels and so the outlook for teaching professionals is good. However, increased demands have been placed on teachers and administrators alike, meaning that it takes a special talent to be a successful classroom teacher or an effective administrator. Increased accountability, emphasis on standardized testing, more ESL students, and growing classroom sizes are just a few of the challenges new teachers face every day. While the number of advanced degrees has decreased overall, and master’s degrees have decreased by 6 percent, the number of doctorates has increased by 21 percent. Demand for teachers continues to be highest for those who will work in rural or urban areas, or those

who specialize in bilingual education, math and science, or special education.

## Degrees Offered in Education and Teaching

There are literally thousands of programs in education, many of which require a teaching credential. Those who do not have a valid teaching credential or even an undergraduate background in education should look for programs that allow students to pursue licensure during their course of study.

For special ed (MS, MEd) and elementary and secondary school teaching (MS, MA, MEd), MS and MA programs usually require students to write a culminating thesis based on classroom research, whereas MEd programs usually do not. MS programs may also require more class work in methodology and research than MA or MEd programs. Most of these programs can be completed in one to two years with flexible part-time, evening, or summer options for current teachers.

Master's programs in educational administration usually span about one or two years and require successful performance in advanced level coursework, as well as participation in a practicum, research project, or internship. Some schools also require students to complete a master's thesis. After completing a master's degree in educational administration, students may choose to continue their studies in an Educational Specialist (EdS) program, designed for students who want to engage in advanced fieldwork, internship experience, or research in a specific area of education. Doctoral programs in educational administration usually focus on research or public policy as it relates to school leadership.



### More Reading

To learn more about teacher certification, check out our book *Cracking the Praxis, 3rd Edition*.

Postsecondary teachers require a PhD or the terminal degree in the field in which they want to teach (for example, an MFA to teach arts and music at the postsecondary level). See also the Humanities and Cultures section for more information on many postsecondary fields.

#### Quick Snapshot: Education and Teaching

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	DEGREE OPTIONS	APPLICATION CONSIDERATIONS
<b>Art Teacher Education</b>	Master's: 140 Doctorate: 9	MA PhD	Prior coursework or other formal training in fine or studio arts
<b>Bilingual and Multilingual Education</b>	Master's: 50 Doctorate: 3	MA, MS, MEd, MBE, PhD	Proven proficiency in a second language
<b>Early Childhood Education and Teaching</b>	Master's: 213 Doctorate: 13	MA, MAT, MS PhD	Teaching experience and certification
<b>Education Leadership and Administration</b>	Master's: 581 Doctorate: 308	MA, EdS PhD	Teaching or administrative credential, plus two years professional experience
<b>Elementary Education and Teaching</b>	Master's: 464 Doctorate: 15	MS, MA, MEd PhD	Valid state teaching credential and teaching experience
<b>Secondary Education and Teaching</b>	Master's: 345 Doctorate: 9	MS, MA, Med PhD	Major in education or in the subject matter one plans to teach
<b>Special Education</b>	Master's: 564 Doctorate: 65	MS, MEd PhD	Major or some coursework in education or special education

For more about post-secondary teaching, visit the chapter for the appropriate subject area, such as Humanities and Cultures.

You can find more detailed information to guide you on the right path from these trade organization websites.

### TRADE ORGANIZATIONS YOU SHOULD KNOW

AASA: The School Superintendents Association <a href="http://aasa.org">aasa.org</a>	AASA is a national association of school system leaders. Their website contains a job board, industry-related articles, membership information, and links to state associations.
National Association for Bilingual Education (NABE) <a href="http://nabe.org">nabe.org</a>	A professional association for bilingual educators. The site has information about the field and a great page of links to related sites.
National Association of State Boards of Education <a href="http://nasbe.org">nasbe.org</a>	The National Association of State Boards of Education will help you find information about state-specific school districts including links about certification requirements, teaching standards, and a section on early childhood education.
National Science Teaching Association <a href="http://NSTA.org">nst.org</a>	The National Science Teaching Association is a national organization of science teachers. Check their website for information on conferences, news, publications, and other education resources.
United States Department of Education	Information about Every Student Succeeds and other federal programs on education.

## Typical Admissions Requirements

Students applying to education and teaching programs typically have several years of teaching or administration experience along with a valid teaching credential. However, some master's level programs will include a certification component for students interested in entering the education field without prior experience or certification.

### General graduate school requirements:

- Bachelor's degree from an accredited college or university
- Official transcript(s) from all colleges or universities attended
- GRE General Test scores (different programs require different minimum scores)
- TOEFL score (if necessary)
- Academic letters of recommendation
- Letter of intent or statement of purpose
- Application forms
- Application fee

### Some degree programs will also require:

- Interview
- Miller Analogies Test (MAT)
- Portfolio (Arts Education)

# **ENGINEERING**

Engineering is a long-respected field leading to many challenging and exciting careers that draw upon creativity, innovative thinking, and a strong foundation in math and science. Engineers are the link between scientific discovery and the commercial application and production of those innovations in society.

There are over 1.4 million engineers employed in the United States, with 4 percent growth expected through 2024. All advanced degrees conferred grew 5 percent through 2013–2014, and PhDs saw an impressive 30 percent growth. With ancient roots dating back to the building of the pyramids, modern engineering trends show a dramatic increase in biomedical engineering as well as higher demand for infrastructure projects to preserve aging buildings, bridges, and transportation systems. Electrical engineering programs are the largest, with nearly one-third of all engineering student enrollment.

## **Degrees Offered**

Engineering offers a wide range of degree programs, each of which contains many concentrations for specialization. For example, a civil engineer could specialize in construction, hydrosystems, structural, or transportation engineering.

Most master's programs are one to two years in length. While not all programs require a relevant bachelor's degree, they do require a strong background in math, science, and engineering undergraduate courses. For those interested in research or academia, further study is required for a Doctorate in Engineering. An alternative to the PhD is a Doctor of Engineering Science (EngScD).

## Quick Snapshot: Engineering

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	% OF ENGINEERING ENROLLMENT*	% OF ENGINEERING EMPLOYMENT **	SPECIAL APPLICATION NOTES
<b>Aerospace</b>	Master's: 61 Doctorate: 44	3%	5%	BS aerospace engineering or significant math and engineering coursework
<b>Biomedical</b>	Master's: 131 Doctorate: 109	6%	2%	
<b>Chemical</b>	Master's: 142 Doctorate: 113	6%	2%	
<b>Civil</b>	Master's: 190 Doctorate: 125	13%	19%	Very competitive admission. Strong scores in engineering, math, & science undergraduate courses.
<b>Electrical, Electronics</b>	Master's: 239 Doctorate: 150	32%	22%	BS electrical engineering or related field, minimum 3.0 GPA
<b>Materials</b>	Master's: 80 Doctorate: 72	5%	2%	BS in related field or significant coursework in math and science
<b>Mechanical</b>	Master's: 219 Doctorate: 140	16%	19%	BS in engineering or related subject; minimum GPA; math & science prerequisites

\*National Science Foundation/National Center for Science and Engineering Studies

\*\*Bureau of Labor and Statistics, Occupational Outlook Handbook, 2014–15.

You can find more detailed information to guide you on the right path from these trade organization websites.

### TRADE ORGANIZATIONS YOU SHOULD KNOW

National Society of Professional Engineers  <a href="http://nspe.org">nspe.org</a>	The National Society of Professional Engineers has the scoop on all the latest technologies and licensing regulations.
American Society of Civil	The American Society of Civil Engineers is the best clearing house for the field. This is the place

Engineers <a href="http://asce.org">asce.org</a>	to look for news, jobs, and licensing information.
Institute of Electrical and Electronics Engineers <a href="http://ieee.org">ieee.org</a>	IEEE is the most complete site dealing specifically with electrical engineering. It also contains job information, interesting articles on the field, and even a virtual museum.
American Society of Mechanical Engineers <a href="http://asme.org">asme.org</a>	An excellent resource for both experienced workers and newcomers to the field. They have a very thorough Career & Education section.
NASA (National Aeronautics and Space Administration) <a href="http://nasa.gov">nasa.gov</a>	The site includes recent news about NASA and its accomplishments.

## Typical Admissions Requirements

Most graduate engineering programs look for substantial coursework in math and science at the undergraduate level, and some require specific classes or majors within the field. Be sure to carefully review admissions requirements well in advance so you can meet all requirements before you apply. Depending on the program, schools might require a minimum GPA.

## General graduate school requirements:

- Bachelor's degree from an accredited college or university

- Official transcript(s) from all colleges or universities attended
- GRE General Test scores (different programs require different minimum scores)
- TOEFL score (if necessary)
- Letters of recommendation
- Application forms
- Application fee

### **Some degree programs will also require:**

- Interview
- Letter of intent or statement of purpose
- Supplementary essays

## **ENVIRONMENTAL SCIENCE, NATURAL RESOURCE MANAGEMENT, CONSERVATION, AND SUSTAINABILITY**

As green issues grow in importance, popularity, and sometimes controversy, the professional fields that employ environmental scientists, conservationists, and natural resource managers are expanding.

In fact, the National Center for Education Statistics did not even track graduate enrollment in natural resources and conservation in the mid 1990s, but reported 22,000 graduate enrollees as of 2011–2012. Job growth in this sector is projected at 11 percent through 2024.

Whether driven by the science behind these issues or the laws and policies (informed by the science and social issues) that impact the environment, people enter this field to make a difference and help keep our planet in good shape for the next generation. Many schools create interdisciplinary programs to encompass the various subjects that impact this field; one might take courses across departments of biology, law, anthropology, sociology, and business or economics. In addition, graduate students can specialize in their particular area of interest, whether more focused on wildlife, water, forestry, land-use, etc.

In general, environmental science takes a more scientific, research-based approach to the problems while environmental studies encompasses the social, historical, political, and legal aspects of the field, with a foundation in scientific data. Be sure to research a specific school's program description and curriculum, as environmental studies is open to interpretation by a school's faculty and departments. If your interest area is specific to forestry, flora and fauna (wildlands), fisheries and aquatic life, or mammals (wildlife), there are master's and PhD programs for these subject areas. Also, think about your geography, as your fieldwork can be greatly enhanced by the location of your graduate program.

## Degrees Offered

While there are opportunities for those with bachelor's degrees to work in this field, master's degrees provide opportunities for advancement and management positions including leading research teams or controlling the direction of projects. Master's degree programs also give students an opportunity to conduct in-depth research employing scientific methods and fieldwork, and exploring the broad spectrum of environmental issues, like the laws and policies that impact this discipline. Of course, a PhD is required for some teaching, research, or senior positions at policy institutes and government agencies.

When choosing your degree program, consider whether you want a broad approach to natural sciences with a specific focus area or would prefer a scientific approach within your area of focus. Degree options include:

- MA or MS in Environmental Studies/Science
- PhD in Environmental Studies/Science
- Master of Forestry, MS or PhD Forestry
- MS or PhD Natural Resources Management and Policy
- MS or PhD Wildlife or Wildlands Science and Management

#### Quick Snapshot: Environmental Sciences

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	DEGREE OPTIONS	PROGRAM CONSIDERATIONS
<b>Environmental Science</b>	Master's: 107 Doctorate: 39	MA, MS PhD	Some schools offer thesis and non-thesis options. Also consider broader study versus an area of focus, like water, animals, land, etc.
<b>Environmental Studies</b>	Master's: 70 Doctorate: 13	MA, MS PhD	This discipline provides a broader approach to the issues, covering the environment including social, political, historical, scientific, etc.
<b>Forestry</b>	Master's: 46 Doctorate: 32	MFR, MS PhD	Master of Science and PhD degrees are more research-oriented than the Master of Forestry degree.
<b>Natural Resources Management and Policy</b>	Master's: 34 Doctorate: 12	MS, JD/MS PhD	Check for interdisciplinary programs or joint degree programs in law or business to tailor your focus.
<b>Wildlife and Wildlands Science</b>	Master's: 26 Doctorate: 16	MS PhD	Applicants should have undergraduate coursework/major in biology or related sciences.

You can find more detailed information to guide you on the right path from these trade organization websites.

#### TRADE ORGANIZATIONS YOU SHOULD KNOW

National Audubon Society  <a href="http://audubon.org">audubon.org</a>	For more than a century, the Audubon Society has been committed to conserving and restoring natural ecosystems, particularly for birds and wildlife.
Natural Resources Conservation Service  <a href="http://nrcs.usda.gov">nrcs.usda.gov</a>	Established by Congress in 1935 as the Soil Conservation Service, this agency's name was changed in 1994 to reflect its broadening scope.
League of Conservation Voters  <a href="http://lcv.org">lcv.org</a>	A national nonprofit that works to keep environmental issues as national priorities, often through grassroots campaigning, awareness, and education.

## Typical Admissions Requirements

Depending on your area of focus, programs may look for a variety of coursework, including anthropology, biology, sociology and more. Undergraduate GPA, recommendations, essays, and GRE scores are required. While undergraduate prerequisites vary, some programs look for an undergraduate degree in a field such as the natural sciences, social sciences, or engineering. For students pursuing subject matter related to policy or economics, schools will look for relevant majors/coursework in those areas.

### General graduate school requirements:

- Bachelor's degree from an accredited college or university
- Official transcript(s) from all colleges or universities attended

- GRE General Test scores (different programs require different minimum scores)
- TOEFL score (if necessary)
- Letters of recommendation
- Letter of intent or statement of purpose
- Application forms
- Application fee

### **Some degree programs schools also require:**

Specific coursework in a related field. Some schools give conditional acceptance until students earn credits for a specific area that is lacking.

## **HEALTH CARE AND PUBLIC HEALTH**

The field of health care is experiencing explosive growth due to the growing elderly population and technological advances in the treatment and diagnosis of illness, disease, injury, and other physical and mental impairments. With a fantastic job outlook, all graduate degrees conferred grew 40 percent in five years (from 2008–2009 to 2013–2014). Many careers in this field require advanced education and/or specialization, and the number of advanced degrees conferred mirrors the growth pattern in this industry, with a 55-percent increase in master's degrees and 23-percent increase in PhDs conferred (from 2008–09 to 2013–14).

### **Degrees Offered in Health Care and Public Health**

Graduate degrees in health care or public health are required for many careers in this field. For audiologists, speech pathologists,

occupational or physical therapists, and many other health careers, a master's degree or professional degree prepares you for work with patients whether in hospitals, clinics, ambulatory care centers, or physicians' offices. Some nurses and public health graduates interested in administration or management pursue joint degrees, such as a joint MBA program.

Growth in the health care industry is evidenced by the dramatic growth seen in advanced degrees conferred. Particularly notable is the rise in the number of doctorates or professional degrees, which grew to over 64,000 in 2013.

Some master's degree programs are coupled with undergraduate programs while others allow you to enter without a specific bachelor's degree as long as you meet prerequisites. Some examples include Master of Science in Nursing, Master in Public Health or Master of Science in Public Health, Master of Science in Physical Therapy, etc. Another possible career path in health care is the Doctor of Medicine (MD) or the Doctor of Osteopathic Medicine (DO). Admission to these programs is very competitive and it's worth noting that admission requires a strong background in sciences and math as well as solid MCAT scores.



#### **Further Reading**

Are you thinking about taking the MCAT? Prepare with some of our fantastic MCAT review products:

Our series of MCAT Review books by subject  
(collect all 6!)

## Quick Snapshot: Health Care & Public Health

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	DEGREE OPTIONS	APPLICATION CONSIDERATIONS (*required or recommended)
Audiology	Master's: 103 Doctorate: 113	MA, MS PhD	Credits in biology, physical science, mathematics, behavioral or social sciences, and speech and language development
Family Nurse Practitioner Studies	Master's: 162 Doctorate: 319	MS PhD	Solid background in physics and mathematics
Health Care Admin., Hospital Management	Master's: 342 Doctorate: 37	MHA, MPH, MBA PhD	Some work experience; background in statistics, accounting, or economics
Nursing Administration	Master's: 148 Doctorate: 14	MS PhD	Background in chemistry, physics, calculus; specific prereqs based on area of focus
Occupational Therapy	Master's: 150 Doctorate: 32	MS PhD	BS OT or relevant coursework, i.e., anatomy, physiology, or psychology
Physical Therapy	Master's: 45 Doctorate: 222	MPT, DPT, MS PhD, Ed D	BS PT or relevant coursework
Public Health	Master's: 225 Doctorate: 61	MPH, DPH Joint Degrees (MD, MPH, RN)	College-level math or biostatistics and the sciences*

You can find more detailed information to guide you on the right path from these trade organization websites.

### TRADE ORGANIZATIONS YOU SHOULD KNOW

American Association of Nurse Practitioners  <a href="http://aanp.org">aanp.org</a>	The American Association of Nurse Practitioners is an advocacy and policy-oriented organization of nurse practitioners.
American College of Epidemiology  <a href="http://acepidemiology.org">acepidemiology.org</a>	The American College of Epidemiology is a professional organization dedicated to continued education for epidemiologists and their efforts to promote the public health.
American Physical Therapy	The American Physical Therapy Association has scholarship listings, seminar information,

Association <a href="http://apta.org">apta.org</a>	and related resources.
American Public Health Association (APHA) <a href="http://apha.org">apha.org</a>	The APHA is an organization dedicated to promoting research on issues in public health and influencing public health policies for over 125 years.
Nursing Center <a href="http://nursingcenter.com">nursingcenter.com</a>	The Nursing Center is a resource for professional nurses. Its website offers articles, job listings, CE activities, and message boards.

## Typical Admissions Requirements

Requirements vary depending on the program you wish to pursue—be sure to read about specific prerequisites for the schools on your list. Most professions in this field need majors or coursework in the sciences and statistics while business and economics are common admissions requirements for managerial positions.

## Trends in Health Care and Public Health

Technological advances in health care mean more options for treating illnesses and diseases. Coupled with an increased emphasis on preventative care, this will drive demand for more nurses, already the largest healthcare occupation at over 2.75 million.

Hospitals are one of the largest employers of healthcare workers; despite this, hospitals will see a slower rate of new jobs because clinics and other outpatient care sites are growing in use.

Fourteen of the top twenty fastest-growing occupations (across all occupations) are healthcare related, meaning that the industry as a whole should see 18-percent growth in jobs through 2024.

The aging baby boom population will increase demand in specialties like occupational therapy, physical therapy, audiology, and speech pathology.

## HUMANITIES AND CULTURES

Socrates taught the adage “Know thyself.” Our need to find meaning and connect with one another runs deep in our humanity. The various degree areas of focus in the humanities and cultures provide a context that allows us to better understand “who we are” through the study of literature, culture, gender or ethnic identity, philosophy, religion, and even the very languages we speak. The analytical thinking and writing skills required for many of these disciplines translate well to many jobs in our modern economy.

Postsecondary teaching and writing opportunities show solid competition for jobs, but job outlook remains fair depending on the area pursued. Growth in advanced degrees has remained steady at 9 percent over a five-year period (from 2007–08 to 2012–13), however there was a 2 percent dip in between 2013 and 2014.

### Quick Snapshot: Humanities & Cultures

SAMPLE DEGREE PROGRAM	NO. OF SCHOOLS OFFERING PROGRAM	DEGREE OPTIONS	APPLICATION CONSIDERATIONS (*required or recommended)
Creative Writing	Master's: 183 Doctorate: 3	MA, MFA PhD	High grades in previous creative writing courses*; manuscript in area of focus
English Language and Literature	Master's: 413 Doctorate: 143	MA PhD	GRE Subject Test in Literature in English*; foreign language
Liberal Arts & Sciences, Humanities	Master's: 288 Doctorate: 17	MA, MS PhD	Background coursework or undergraduate major
Linguistics	Master's: 93 Doctorate: 57	MA, MS PhD	Writing sample, curriculum vitae
Philosophy, Philosophy & Religion	Master's: 158 Doctorate: 109	MA, MTA/MTS MDiv/Mphil, PhD	Relevant coursework or major recommended

## Degrees Offered in Humanities and Cultures

Most master's degree programs in humanities and cultures take one to two years to complete, with a culminating thesis and exams. This is true for creative writing, but students also have the option to pursue a Master of Fine Arts, which usually takes two to four years and typically requires a manuscript of publishable quality to complete the program.

Those who choose to go on to pursue a PhD can expect to spend five to seven years fulfilling course requirements, writing a thesis, and ultimately, defending it orally. Many PhD programs also have written exam requirements. For degrees in comparative literature and even other areas of literature, there are also foreign language requirements.

A master's level (MA or MS) degree in linguistics covers core areas of language structure, field methods, and research. Programs may be class-based or thesis-based; most take about two years. A PhD in linguistics may take an additional three to four years. Most doctoral programs encompass master's level material but focus on theoretical topics in language structure, language acquisition, and processing.

You can find more detailed information to guide you on the right path from these trade organization websites.

### TRADE ORGANIZATIONS YOU SHOULD KNOW

American Academy of Religion  <a href="http://aarweb.org">aarweb.org</a>	The world's largest organization of academics researching and teaching religion-related topics.
American Comparative	Provides links to journals, prizes, conferences, and also to affiliated associations and research sources.

Literature Association  <a href="http://acla.org">acla.org</a>	
Linguistic Society of America  <a href="http://linguisticsociety.org">linguisticsociety.org</a>	This is the largest linguistic society in the world; an interest in the field is the only requirement for membership. In addition to a regularly published journal, <i>Language</i> , the LSA hosts annual meetings and summer institutes.
The Modern Language Association of America  <a href="http://mla.org">mla.org</a>	Information on periodicals, conferences, readings, jobs, and style guides. It also provides a quarterly newsletter and links to accredited universities.
The Voice of the Shuttle  <a href="http://vos.ucsb.edu">vos.ucsb.edu</a>	An online compendium of sites for academic research. It contains searchable areas from multiple disciplines in the humanities.

## Typical Admissions Requirements

Admissions requirements vary across the broad spectrum of programs within humanities and cultures, but most programs require excellent writing skills, so essays, statement of purpose, and/or academic writing samples will often be required as part of the admissions process. For American or English literature as well as comparative literature, be ready to take the GRE Subject Test in Literature in English in addition to the GRE.

## General graduate school requirements:

- Bachelor's degree from an accredited college or university