CHAPTER 22: ISEE
PRACTICE TEST 3:
LOWER-LEVEL

HOW TO TAKE THIS PRACTICE TEST

Before taking this practice test, find a quiet room where you can work uninterrupted for three hours. Make sure you have a comfortable desk and several No. 2 pencils.

Use the answer sheet provided to record your answers. (You can cut it out or photocopy it.)

Once you start this practice test, don’t stop until you’ve finished. Remember—you can review any questions within a section, but you may not go backward or forward a section.

You’ll find answer explanations following the test.

Good luck.
## ISEE Practice Test 3: Lower-Level Answer Sheet

Remove (or photocopy) the answer sheet and use it to complete the practice test.

Start with number 1 for each section. If a section has fewer questions than answer spaces, leave the extra spaces blank.

### Section 1

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

### Section 2

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

### Section 3

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

### Section 4

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
SECTION 1
Time—20 Minutes
34 Questions

This section consists of two different types of questions. There are directions for each type.
Each of the following questions consists of one word followed by four words or phrases. Select the one word or phrase whose meaning is closest to the word in capital letters.

1. DECLINE:
(A) decrease
(B) promote
(C) delete
(D) agree

6. COLLIDE:
(A) forget
(B) crash
(C) amplify
(D) plan

2. DELICATE:
(A) strong
(B) fragile
(C) low
(D) delicious

7. PROCLAIM:
(A) behave
(B) prelude
(C) submit
(D) announce

3. JUBILEE:
(A) confidence
(B) chaos
(C) design
(D) festival

8. SYMPATHY:
(A) understanding
(B) harmony
(C) affection
(D) responsibility

4. LIBERATE:
(A) release
(B) work
(C) chase
(D) hope

9. INVENTION:
(A) interpretation
(B) party
(C) delegation
(D) creation

5. TRANSFORM:
(A) open
(B) submit
(C) change
(D) keep

10. AUTHORITY:
(A) expert
(B) respect
(C) bravery
(D) rivalry

GO ON TO THE NEXT PAGE
11. ILLUSTRATE:
   (A) cover
   (B) draw
   (C) simulate
   (D) waste

12. COMMOTION:
   (A) happiness
   (B) trick
   (C) uproar
   (D) collaboration

13. EXHAUSTED:
   (A) clumsy
   (B) tired
   (C) accountable
   (D) excited

14. TREAD:
   (A) scatter
   (B) help
   (C) alarm
   (D) walk

15. MENTOR:
   (A) symbol
   (B) artist
   (C) collector
   (D) counselor

16. REACTION:
   (A) selection
   (B) response
   (C) care
   (D) achievement

17. DWINDLE:
   (A) ridicule
   (B) thwart
   (C) shrink
   (D) tarnish

Directions: Select the word(s) that best fit the meaning of each sentence.

18. Although Mrs. Brown had taught long division to her students numerous times, she decided to take the time to ________ it once more.
   (A) admonish
   (B) request
   (C) explain
   (D) employ

19. Keesha's ________ nature would not allow her to ignore others who were feeling sad or lonely.
   (A) terse
   (B) intellectual
   (C) secure
   (D) compassionate

20. The toddler was so ________ that he often hid behind his mother's legs when introduced to strangers.
    (A) hyper
    (B) timid
    (C) young
    (D) disobedient

21. Alex often felt ________ after earning a high score on a test.
    (A) distressed
    (B) proud
    (C) helpless
    (D) intimidated
22. The low, gray clouds made the sky look __________.
   (A) trite
   (B) ominous
   (C) intentional
   (D) luminous

23. Judy noticed that the native vegetation created a __________ over the swamp.
   (A) canopy
   (B) hazard
   (C) reef
   (D) lagoon

24. Ling needed to win one more match in order to be the __________ of the tournament.
   (A) creator
   (B) center
   (C) choice
   (D) champion

25. Phoebe was __________ after she finished running the Boston Marathon.
   (A) conservative
   (B) fortunate
   (C) jubilant
   (D) confused

26. Jeff spilled grape juice on his essay, but it wasn't a big deal since he could just print out a __________ copy.
   (A) duplicate
   (B) creative
   (C) symbolic
   (D) previous

27. A __________ summer day for the young mother and her son included a two-mile walk around the neighborhood.
   (A) naive
   (B) typical
   (C) confidential
   (D) dire

28. Even though Mischa was guilty, she tried to __________ it.
   (A) tell
   (B) shout
   (C) propose
   (D) deny

29. Highway traffic was __________ due to the accident up ahead.
   (A) tight
   (B) stalled
   (C) reinforced
   (D) fatigued

30. The police officer told Clay he needed to __________ his speed on the road.
   (A) simplify
   (B) join
   (C) reduce
   (D) practice

31. In order to do well in school, the football player had to __________ his time between his practice and his studies.
   (A) balance
   (B) entertain
   (C) connect
   (D) perform
32. Allison left a note on the counter to ________
   her father to buy more milk.
   (A) confront
   (B) urge
   (C) taunt
   (D) remind

33. The puppy looked ___________ when he
    realized he was going to be left behind.
   (A) relieved
   (B) dejected
   (C) hungry
   (D) excited

34. The ________ solution to a problem takes
    both sides into account.
   (A) incredible
   (B) malicious
   (C) ideal
   (D) unexpected
SECTION 2
Time—35 Minutes
38 Questions

In this section there are four possible answers after each question. Choose which one is best. You may use the blank space at the right of the page for scratch work.

Note: Figures are drawn with the greatest possible accuracy, UNLESS stated "Not Drawn to Scale."

1. If $8 - x = 4$, and $10 + y = 12$, then $x - y =$
   
   (A) 2
   (B) 3
   (C) 4
   (D) 5

2. Twenty students brought animals to school for pet day. Eight students brought dogs, four students brought birds, two brought cats, and the rest brought other animals. What fraction of the students brought other animals?
   
   (A) $\frac{3}{10}$
   (B) $\frac{6}{14}$
   (C) $\frac{10}{12}$
   (D) $\frac{3}{20}$

3. $8 \times 2 \times 6 \times 2$ is equal to the product of 16 and
   
   (A) 4
   (B) 8
   (C) 12
   (D) 16

4. Jennifer and José each swam five laps in 15 minutes. At the same rate of speed, how long would they need in order to swim 35 laps?
   
   (A) 35 minutes
   (B) 75 minutes
   (C) 105 minutes
   (D) 175 minutes
5. A square has a perimeter of 16. What is the length of one side?
   (A) 2
   (B) 4
   (C) 6
   (D) 8

6. Which of the following is the smallest?
   (A) 0.0005
   (B) 0.005
   (C) 0.05
   (D) 0.5

7. Which of the following is equal to two-thirds?
   (A) \( \frac{4}{12} \)
   (B) \( \frac{6}{12} \)
   (C) \( \frac{10}{15} \)
   (D) \( \frac{12}{15} \)

8. Which fruit is included in the shaded section of Figure 1?
   (A) Apples
   (B) Peaches
   (C) Grapes
   (D) Bananas

9. Which of the following numbers is NOT a prime factor of 90?
   (A) 2
   (B) 3
   (C) 5
   (D) 9
10. In a semester of 40 school days, Mrs. Alvarez was out sick twice. What percent of the time was she out sick?

(A) 3 percent  
(B) 4 percent  
(C) 5 percent  
(D) 10 percent

11. To which number is the arrow pointing in Figure 2?

(A) \(\frac{3}{8}\)  
(B) \(\frac{3\frac{3}{4}}{8}\)  
(C) \(\frac{3\frac{3}{4}}{4}\)  
(D) \(\frac{3\frac{5}{8}}{8}\)

12. In the Venn diagram in Figure 3, the shaded region shows people who drive

(A) cars and trucks  
(B) trucks and motorcycles  
(C) cars and motorcycles  
(D) cars, trucks, and motorcycles

13. The record for the 100-yard dash was 13.71 seconds. Andrew beat the record by a tenth of a second. What was Andrew’s time?

(A) 13.61 seconds  
(B) 13.72 seconds  
(C) 13.82 seconds  
(D) 14.71 seconds
14. During a 24-hour day, Shannon’s cat sleeps \( \frac{5}{6} \) of the time. How many hours does the cat sleep?

(A) 16 hours
(B) 18 hours
(C) 20 hours
(D) 22 hours

15. Kurt has four boxes. He wants to use the box with the smallest volume. Which box should Kurt use?

(A) 2" high \times 3" wide \times 4" long
(B) 2" high \times 4" wide \times 5" long
(C) 3" high \times 4" wide \times 5" long
(D) 4" high \times 5" wide \times 6" long

16. The populations of four small towns are 11,361, 11,924, 12,102, and 11,642. Which of the following shows the populations in order of smallest to largest?

(A) 11,361, 11,642, 11,924, 12,102
(B) 11,361, 11,924, 11,642, 12,102
(C) 11,642, 11,924, 11,361, 12,102
(D) 12,102, 11,624, 11,924, 11,361

17. Which of these numbers is equal to \( \frac{65}{100} \)?

(A) 0.065
(B) 0.65
(C) 6.5
(D) 65

18. Look at this series: 1, 3, 7, 15, 31, 63, .... What number comes next?

(A) 64
(B) 126
(C) 127
(D) 133
19. Christopher is nine times the age of his 4-year-old son. How old is Christopher?

(A) 30 years old
(B) 32 years old
(C) 34 years old
(D) 36 years old

20. Darby was making a fruit smoothie. The ingredients included 15 percent yogurt, 40 percent ice, and 10 percent bananas. The only other thing she put in was frozen strawberries. What fractional part of the smoothie was made up of strawberries?

(A) $\frac{7}{20}$
(B) $\frac{55}{100}$
(C) $\frac{13}{20}$
(D) $\frac{65}{100}$

21. What place does the 5 take in 23.654?

(A) Tenths
(B) Hundredths
(C) Thousandths
(D) Ten-thousandths

22. Ms. Campton's classroom is 15 feet long and 22 feet wide. What is the area of her classroom?

(A) 37 square feet
(B) 74 square feet
(C) 300 square feet
(D) 330 square feet
23. The O'Malleys have a rectangular pool that is 16' long and 8' wide. Their next-door neighbors want to build a congruent pool. What measurements will the neighbors' pool have?  

(A) 8' × 8'  
(B) 8' × 16'  
(C) 24' × 2'  
(D) 16' × 16'

24. Casey makes a 30 percent profit for every sale she makes selling cosmetics. If she sells $300 worth of cosmetics, how much money will she make?  

(A) $30  
(B) $90  
(C) $100  
(D) $200

25. Which of the following does NOT equal \( \frac{1}{4} \)?  

(A) \( \frac{2}{8} \)  
(B) \( \frac{3}{12} \)  
(C) \( \frac{4}{16} \)  
(D) \( \frac{8}{20} \)

26. Approximately how long is the drive from point A to point B in Figure 4?  

(A) 12 miles  
(B) 14 miles  
(C) 16 miles  
(D) 20 miles
27. Cecile received $10 as an allowance. She spent $1.15 on ice cream and $3.49 on a magazine. How much does Cecile have left?

(A) $4.64
(B) $5.36
(C) $6.51
(D) $8.85

28. The school bus can hold 50 children. Which two classes can use the school bus for their field trip?

(A) A class of 14 and a class of 32
(B) A class of 15 and a class of 36
(C) A class of 25 and a class of 26
(D) A class of 30 and a class of 25

29. Rover’s dog food costs $19.85 for a 20-pound bag. Trixie’s cat food costs $9.24 for a 10-pound bag. Which of the following costs more?

(A) One bag of dog food
(B) Two bags of cat food
(C) One bag of dog food and two bags of cat food cost the same.
(D) The answer cannot be determined from the information given.

30. In a grocery cart, there is an equal number of vegetables, fruits, and breads. How many items could be in the cart?

(A) 14
(B) 38
(C) 42
(D) 56

31. Which transformation has been applied to the shape in Figure 5?

(A) A reflection
(B) A slide
(C) A turn
(D) A slide followed by a turn
32. Libby types 75 words per minute. How many words does she type per second?
   (A) 0.75
   (B) 1.25
   (C) 2
   (D) 7.5

33. In a geography class of 24 students, each student had to select a state on which to give a three-minute report. How long did the presentations last in total?
   (A) 1 hour 6 minutes
   (B) 1 hour 12 minutes
   (C) 1 hour 15 minutes
   (D) 1 hour 30 minutes

34. If the shaded section of the circle in Figure 6 signifies 850 types of flowers, how many flowers could the unshaded section represent?
   (A) 750
   (B) 800
   (C) 850
   (D) 900

35. Rebecca, Ian, and Clare were driving at the same speed. It took Rebecca 20 minutes to drive 15 miles. How long did it take Ian to drive 30 miles?
   (A) 40 minutes
   (B) 50 minutes
   (C) 60 minutes
   (D) 70 minutes
36. In a jar, there are equal numbers of red, green, and yellow marbles. Which of the following could be the number of marbles in the jar?

(A) 35
(B) 47
(C) 58
(D) 72

37. In a survey of 45 students, twice as many students preferred dogs to cats than preferred cats to dogs. If all students preferred either a dog or a cat, how many people preferred dogs?

(A) 15
(B) 20
(C) 25
(D) 30

38. Which of these is a whole number greater than 15?

(A) 14
(B) 15.5
(C) 16\frac{1}{2}
(D) 18
Whale sharks (Rhincodon typus) are not whales and they are not mammals. They are the largest fish in the world. An average whale shark is around 25 feet long, but they can reach up to 40 feet long.

As with most sharks, the females are larger than the males.

You would think that with such a massive body this shark would be a fierce predator, but this mammoth fish is quite mild-mannered. It likes its solitude. Its mouth, which looks quite threatening, can open up to four feet wide and has about 310 rows of teeth, or about 3,000 teeth in all. The interesting thing is, this gentle giant doesn’t even really use the teeth. Instead, it filters plankton and krill through its gills for nourishment by simply opening its enormous mouth to take in a large amount of water. The plankton stay in the mouth for nourishment while the water strains through gills in the side of the mouth. Even though a whale shark has a huge body, its gullet is relatively small. So while a whale shark could fit larger food into its mouth, it would not be able to swallow it.

Whale sharks are quite beautiful. Their back and sides are a reddish or greenish-brown. The top of the body has white or yellowish spots and stripes of varying sizes, and the underside is whitish or yellowish-white. A diver looking for such beauty has nothing to fear: Whale sharks are harmless to people, and if met by a diver, would probably ignore him completely. They live in the open seas all over the world, preferring to stay in areas close to the equator for the mild temperatures. They reach adulthood at 25 to 30 years of age, and they may live to be 100 years old.

1. The purpose of this passage is to
(A) explain why whale sharks are harmless to people
(B) explain why whale sharks are fish instead of mammals
(C) describe whale sharks
(D) explain how divers should deal with whale sharks

2. Most female sharks are
(A) larger than the males
(B) more beautiful than the males
(C) more dangerous than the males
(D) smaller than the males

3. What is a predator?
(A) A fish
(B) A hunter
(C) A mammal
(D) A gentle giant

4. Which of the following is NOT true about whale sharks?
(A) They use all 3,000 teeth.
(B) They have mouths that can open up to four feet wide.
(C) They cannot swallow a large amount of food.
(D) They eat mostly plankton and krill.
5. If a scuba diver came across a whale shark, the
whale shark would probably
(A) swim away
(B) open its enormous mouth
(C) keep its eye on the diver
(D) pay no attention to the diver

There is nothing I like so well on a summer day as to hear the ding-ding song of the ice cream truck as it's coming around the corner. That tune of "Do Your Ears Hang Low" makes my heart jump. I race out the door to catch the truck before I miss it, but not before grabbing some change from the kitchen counter that my parents have left. It's something to do—something to cool me off—and it's the highlight of a typical lazy day.

Once I catch the truck, I've got all the time in the world to hem and haw about what to get. I like to read through the entire side-of-the-truck menu, chatting with the girl behind the counter. I usually like an orange push-up, though occasionally I'll get an ice cream sandwich. I have to eat it slowly enough to enjoy it, but fast enough so that it doesn't drip down my arm. Finding this balance is tricky, and sometimes depends on whether the sky is cloudy or clear.

Lots of my neighbors race out of their houses the way I do, hoping to get there in time. I'm usually first since my house is the closest to the corner, and if I can catch the truck, then they are usually all safe. Often, though, if I miss it, they miss it too. If that's the case, imagine how disappointed I am. If there’s no change to grab from the counter or if the truck is going too fast, I get outside just in time to see its taillights turn off my street. On those days, I’m not allowed to go that far to catch it. But when I do make it in time, that ice cream song stays with me for the rest of the day.

6. The purpose of the passage is to
(A) challenge the reader to run to the ice cream truck
(B) prove that ice cream is the best treat on a summer day
(C) describe a summer treat
(D) teach the reader a new song

7. What does it mean to “hem and haw”?
(A) To take one's time in choosing
(B) To buy more than one thing
(C) To halt
(D) To choose quickly

8. This passage is written in the
(A) first person
(B) second person
(C) third person
(D) fourth person

9. All of the following are true EXCEPT
(A) the ice cream truck makes this person feel happy
(B) this person is not allowed to leave the street where she lives
(C) this person always gets an orange push-up
(D) other people in the neighborhood enjoy the ice cream truck too

10. The main character is probably a
(A) baby
(B) toddler
(C) parent
(D) child
In May, Bailey moved into a new house. His large, fenced-in yard had potential, but the grass needed to be weeded and some flowers needed to be planted. Bailey invited some friends to his house to help. He provided good music, plenty of snacks, and cold drinks. Everyone was amazed how much they were able to accomplish in that one day!

Bailey and Nolan started by weeding the front yard. Then they planted ferns and marigolds underneath the olive tree. They planted a bleeding heart vine and some red impatiens along the front of the fence. Bailey left plenty of room between the impatiens for the roses he would plant in the fall.

Janet focused on the side of the back porch. She (10) filled some holes with dirt, and then she hoed the ground to make it level. She alternated planting gardenias and black-eyed Susans. She knew that gardenia blooms would smell lovely, and the bright yellow flowers would be pleasing to the eye.

Together these plants made an attractive garden bed. Meanwhile, Christina and Akiko worked along the back of the porch. They laid 10 large stepping stones in even spaces, and in between each stone, planted red, orange, yellow, and pink purslane (15) ground cover. They knew that the plants would grow all around the stones to create a charming walkway.

Lilia and Nathan cleared weeds along the whole right-side fence. This was back-breaking work, but the weeds had to go! Then they planted red bougainvillea and blue plumbago bushes. There was still space to plant some smaller annuals, but Bailey would have to do that another day.

After hours of work in the hot sun, the friends were exhausted. They spent the rest of the afternoon resting, talking, and laughing on the porch, surrounded by the results of their hard work. Thanks to the help of so many friends, (20) Bailey's new house looks loved.

11. In paragraph 1, what does it mean that the yard had potential?
   (A) There was the possibility that the yard would look good.
   (B) The yard was full of weeds and needed work.
   (C) The yard had no flowers.
   (D) Someone had been taking care of the yard.

12. Bailey wants his yard to look
   (A) unusual
   (B) busy
   (C) charming
   (D) exhausting

13. Bailey and Nolan
   (A) weeded the backyard
   (B) planted an olive tree
   (C) planted roses
   (D) planted ferns and marigolds

14. What did Janet do first?
   (A) She planted gardenias
   (B) She planted black-eyed Susans
   (C) She smoothed the ground
   (D) She filled in some holes

15. Lilia and Nathan did all of the following EXCEPT
   (A) plant some small annuals
   (B) plant bougainvillea
   (C) plant plumbago bushes
   (D) pull out weeds
"Come on, come on," you think. "I can see the top!" You're almost there. The top. The summit.
Your goal. The sun is beating down on your back and you are there, in the moment, looking upward.

**Line 5** Whatever you do, you cannot look down. Leg muscles shaking, fingertips clutching their hold, you think, "I can do this!"

This is rock climbing at its best. There's the challenge to face, the fear to overcome, the

**Line 10** muscles to test, and finally, the exhilaration to feel. But would you rather ride horses? Hike? Do gymnastics? Do you stick your toe in the water first before jumping in? Or do you dive headfirst? Cautious, careful, or crazy, one week at an

**Line 15** adventure camp could change your whole attitude about yourself and level of confidence.

Maybe you're thinking that "real kids" don't get to do these things. You're wrong. You don't even have to be an athlete. Today there are thousands of adventure camps across the country. So what are you waiting for? Sign up and go! What you do with your experience will be up to you.

**16.** What is the purpose of this passage?
(A) To teach you about backpacking
(B) To challenge you to change your lifestyle
(C) To excite you about going to adventure camp
(D) To encourage you to have a better attitude

**17.** What is "exhilaration" (paragraph 2)?
(A) Fear
(B) Heat
(C) Understanding
(D) Excitement

**18.** Which of the following statements is NOT listed as a part of rock climbing?
(A) The challenge of reaching the summit
(B) Overcoming your fear
(C) Testing your muscles
(D) Spending time with friends

**19.** Why would someone choose to go to an adventure camp?
(A) To challenge himself
(B) To climb a mountain
(C) To do gymnastics
(D) To go hiking

**20.** What kind of person sticks her toe in the water before going in?
(A) A risk taker
(B) An adventurous person
(C) A cautious person
(D) A mountain climber

Here's what to do for the dogs while we're out of town:

Fido likes to go out first thing in the morning and then before bed. There's no need to go out with her, just open the door and she'll go right into the yard. If she needs to go in the middle of the day, she'll stare at you intently and grunt. Both dogs like a little walk in the morning and again at around 4:30. After the morning walk, you can give them some bread as a treat.

Samson has to take arthritis pills. Two in the morning and one in the evening. Use peanut butter or bread to hide the pills so that he'll eat them. Fido gets two vitamins in the morning, which she loves, so you don't have to camouflage her pills.

I'm leaving peanut butter treats, chew sticks, bacon, and sausages in the fridge. Use anything you want! If you need more food, that's in the garage. We leave the food bowl filled up all day so the dogs can eat whenever they are hungry. Please make sure they always have cold water in their bowls.

Thanks for all of your help! See you on Saturday!

**25.** Oh, one last thing: If you decide to take the dogs to your house, don't forget to take the dog bed, along with a blanket, so you can cover up Samson if it starts to thunder.
21. What is the purpose of this passage?
   (A) To give directions for feeding two dogs
   (B) To give directions for taking care of two dogs
   (C) To give directions for walking two dogs
   (D) To give directions for giving medicine to two dogs

22. When do the dogs eat?
   (A) Whenever they are hungry
   (B) After their morning walk
   (C) In the afternoon
   (D) After their afternoon walk

23. Why do Samson's pills have to be hidden in peanut butter or bread?
   (A) He will spit them out otherwise.
   (B) He might otherwise try to eat Fido's vitamins.
   (C) He likes peanut butter or bread as a breakfast treat.
   (D) He is spoiled.

24. How does Fido let you know if she needs to go out?
   (A) She barks.
   (B) She only needs to go out during her regular walks.
   (C) She paces around the room.
   (D) She stares and grunts.

25. After their morning walk, the dogs get what treat?
   (A) Sausages
   (B) A piece of bread
   (C) Dog food
   (D) A peanut butter treat
SECTION 4
Time—30 Minutes
30 Questions

In this section there are four possible answers after each question. Choose which one is best.
Note: Figures are drawn with the greatest possible accuracy, UNLESS stated “Not Drawn to Scale.”

1. Which is fifty-three thousand, nine hundred fourteen?
   (A) 53,914
   (B) 503,914
   (C) 530,914
   (D) 539,014

2. Which is the largest fraction?
   (A) \( \frac{6}{18} \)
   (B) \( \frac{1}{2} \)
   (C) \( \frac{5}{6} \)
   (D) \( \frac{9}{10} \)

3. \( \frac{1}{5} + \frac{2}{3} = \)
   (A) \( \frac{3}{15} \)
   (B) \( \frac{2}{8} \)
   (C) \( \frac{3}{8} \)
   (D) \( \frac{13}{15} \)

4. \( 400 + 950 = \)
   (A) 990
   (B) 1,350
   (C) 4,950
   (D) 9,450

USE THIS SPACE FOR FIGURING.
5. What is the product of 11 and 3?
   (A) 0.273
   (B) 3.66
   (C) 14
   (D) 33

6. What is 5,772 divided by 6?
   (A) 662
   (B) 912
   (C) 962
   (D) 1,012

7. ___ + 8 - 19 = 50
   (A) 11
   (B) 31
   (C) 39
   (D) 61

8. 15 × 300 =
   (A) 45
   (B) 450
   (C) 4,500
   (D) 45,000

9. 53.09 - 9.34 =
   (A) 40.31
   (B) 42.25
   (C) 43.25
   (D) 43.75

10. \( \frac{2}{15} = \frac{2}{3} \)
    (A) 2
    (B) 4
    (C) 5
    (D) 10
11. Marla twirls her hair once every six seconds. How many times does she twirl her hair in a minute?
   (A) 6
   (B) 8
   (C) 10
   (D) 12

12. \( \_ + 16 - 5 = 40 \)
   What is the missing number?
   (A) 24
   (B) 29
   (C) 31
   (D) 33

13. A puppy weighed four pounds when he was six weeks old. Now that he is six months old, he has gained 80 percent more weight. How much does the puppy weigh now?
   (A) 7 pounds
   (B) 7.2 pounds
   (C) 12.8 pounds
   (D) 32 pounds

14. If \( x = 5 \), which of these statements is true?
   (A) \( x + 8 = 11 + 3 \)
   (B) \( x + 9 = 6 + 8 \)
   (C) \( x + 10 = 15 - 5 \)
   (D) \( x + 11 = 14 + 5 \)

15. What is the missing number in the pattern in Figure 1?
   (A) 16
   (B) 17
   (C) 18
   (D) 19

USE THIS SPACE FOR FIGURING.
16. If \( n = 9 \), which of these number sentences is true?

(A) \( 2n - 6 = 14 \)
(B) \( 3(n - 3) = 18 \)
(C) \( 4(n + 5) = 18 \)
(D) \( 5n + 8 = 22 \)

17. What is the sum of 25 and 30?

(A) 5
(B) 55
(C) 75
(D) 750

18. Devon bought $8.96 worth of gas. He paid with a 20 dollar bill. How much change did he receive?

(A) $11.04
(B) $11.96
(C) $12.14
(D) $12.96

19. \( 500 - 409 = \)____

(A) 91
(B) 109
(C) 101
(D) 191

20. What is the product of 5 and 20?

(A) 4
(B) 25
(C) 75
(D) 100
21. If $8 + a = 15$ and $6 + b = 14$, then what is $a + b$?
   (A) 12  
   (B) 13  
   (C) 14  
   (D) 15

22. If $a = b$ and $b = c$, then
   (A) $a + b = c$  
   (B) $a = c$  
   (C) $bc = a$  
   (D) $c + b = a$

23. The diameter of the circle in Figure 2 is 8 cm. What is the radius? NOTE: The radius is the length halfway across the circle.
   (A) 4 cm  
   (B) 8 cm  
   (C) 10 cm  
   (D) 16 cm

24. What is the perimeter of the rectangle in Figure 3?
   (A) 18 in.  
   (B) 30 in.  
   (C) 36 in.  
   (D) 72 in.

25. When folded on the lines, what will the shape in Figure 4 become?
   (A) Cylinder  
   (B) Cube  
   (C) Square pyramid  
   (D) Sphere
26. What is the volume of the box in Figure 5?
   (A) 12 cubic feet
   (B) 24 cubic feet
   (C) 48 cubic feet
   (D) 60 cubic feet

27. \[ 5.123 + 2.627 = \]
   (A) 7.65
   (B) 7.743
   (C) 7.749
   (D) 7.75

28. \[ 10,000 - 45n = \]
   (A) 955n
   (B) 9,955n
   (C) 99,955n
   (D) The answer cannot be determined from the information given.

29. Which of the following is closest to 100.11?
   (A) 99.11
   (B) 101
   (C) 100.1
   (D) 100
30. \( \frac{1}{4} + \frac{5}{8} = \)

(A) \( \frac{1}{2} \)

(B) \( \frac{3}{4} \)

(C) \( \frac{5}{6} \)

(D) \( \frac{7}{8} \)

USE THIS SPACE FOR FIGURING.
SECTION 5
Time—30 Minutes

Write an essay on the following prompt on the paper provided. Your essay should not exceed two pages and must be written in ink. You must use a black or blue pen. Erasing is not allowed.

Prompt: Write about a time when you made a mistake.
### ANSWER KEY

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7. D</td>
<td>3. C</td>
<td>34. D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. C</td>
<td>8. C</td>
<td></td>
<td><strong>Section 3</strong></td>
<td>5. D</td>
</tr>
</tbody>
</table>
ISEE PRACTICE TEST 3: LOWER-LEVEL: ASSESS YOUR STRENGTHS

Use the following tables to determine which topics and chapters you need to review most. If you need help with your essay, be sure to review Chapter 9: The Essay and Chapter 26: Writing Skills.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal: Synonyms</td>
<td>Section 1, questions 1–17</td>
</tr>
<tr>
<td>Verbal: Sentence Completions</td>
<td>Section 1, questions 18–34</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>Section 2, questions 1–38</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>Section 3, questions 1–25</td>
</tr>
<tr>
<td>Mathematics Achievement</td>
<td>Section 4, questions 1–30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Questions on Test</th>
<th>Number Correct</th>
<th>If you struggled with these questions, study...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal: Synonyms</td>
<td>17</td>
<td></td>
<td>Chapters 7 and 24</td>
</tr>
<tr>
<td>Verbal: Sentence Completions</td>
<td>17</td>
<td></td>
<td>Chapter 4</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>38</td>
<td></td>
<td>Chapters 10–14 and Chapter 25</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>25</td>
<td></td>
<td>Chapter 8</td>
</tr>
<tr>
<td>Mathematics Achievement</td>
<td>30</td>
<td></td>
<td>Chapters 10–14 and Chapter 25</td>
</tr>
</tbody>
</table>
ANSWERS AND EXPLANATIONS

SECTION 1: VERBAL REASONING

SYNONYMS

1. A
To decline is to deteriorate or decrease.

2. B
Something delicate is also fragile, as in a delicate glass vase. Do not be misled by (D) just because its beginning letters are similar to that of the original word.

3. D
A jubilee is a celebration, such as an anniversary or festival.

4. A
To liberate is to set free or release from captivity.

5. C
When you transform your life, you change it.

6. B
When two items collide, they crash into each other.

7. D
To proclaim something means to announce it.

8. A
To show sympathy for another is to express sorrow and understanding of that person’s feelings.

9. D
An invention is a new idea or creation.

10. A
An authority is an expert.

11. B
To illustrate is to draw.

12. C
To cause a commotion is to create a fuss or uproar. A collaboration is something that involves the participation of several people.

13. B
When you feel exhausted, you are extremely tired.

14. D
Tread is another word for walk.

15. D
A mentor is a tutor or coach. (D), counselor, is the closest in meaning.

16. B
A reaction is a response.

17. C
To dwindle means to shrink or become steadily less, such as a dwindling bank account.

SENTENCE COMPLETIONS

18. C
The sentence implies that the students need long division to be explained again. “Although” is a key word here: It suggests that you will need to repeat an idea again in the second clause. The verb “had taught” is closely related to explain. Numerous means many, so she had taught them many times before. Admonish means to caution, which does not
make sense. Request means to ask for, and employ means to use.

19. D
The blank requires you to fill in a word with the same meaning as *not ignoring others who are feeling sad or lonely*. A compassionate person is concerned for others. A terse person is dismissive or brief; an intellectual person thinks academically, and an insecure person lacks confidence; none of these have anything to do with being concerned for others.

20. B
Hiding behind your mother's legs would suggest you are timid or shy. A toddler would probably be young as well, but being young does not explain why he would hide when meeting strangers. He might also be disobedient, but that, too, does not explain why he would hide.

21. B
Earning a high score is something one would be proud of. Feeling distressed (upset) would be the opposite of how you would feel under these circumstances. Neither would you feel helpless (defenseless). Intimidated means nervous or anxious, so that answer choice is incorrect as well.

22. B
Low, gray clouds are a sign of something—probably something bad or negative. Ominous means threatening and is the correct answer. Trite means commonplace and unoriginal. Intentional means on purpose.

23. A
A canopy is a covering. From the other words in the sentence, we know we need something “created” by the vegetation. No other choice fits.

24. D
Ling is winning “in order to be” something, The only answer choice that makes sense is (D). A champion is a winner in a competition.

25. C
We know that Phoebe finished running the marathon, so she must be very happy. Jubilant means filled with joy, and it is the right answer. She might feel also fortunate (lucky), but between the two answer choices (B) and (C), jubilant is the better choice: We do not know for certain that she would feel lucky, but we can be fairly certain that she would feel happy.

26. A
Jeff needs to print out a new copy of his essay. (A), duplicate (double or identical) copy is what he would need to print. Don’t be misled by (D), a previous copy: Previous means earlier or prior, and it is not right here. You wouldn’t print out an earlier copy; you would print out an identical copy.

27. B
It seems as though a walk around the neighborhood is something the mother and son do on a daily basis—in other words, on a typical day or a regular day. Naïve means inexperienced or innocent, confidential means private, and dire means terrible.
28. D
"Even though" tells us there must be a contrast here. We are told that Mischa is guilty, so the contrast is probably something that has to do with denying the truth—declaring it untrue.

29. B
An accident on the highway would make traffic come to a standstill. That’s another way of saying stalled traffic, (B). You might suspect (A) is correct, but it is not appropriate to say tight traffic. Fatigued means tired, and traffic cannot be tired.

30. C
A police officer would want Clay to lower, or reduce, his speed.

31. A
The football player would have to balance, or divide fairly, his time between practice and studying if he wants to do well in school. Entertain makes no sense here; nor does connect or perform.

32. D
The note is intended to remind her father. Don’t be tricked by (B): It seems like it might be acceptable to say that she urged her father to get more milk, but then when you see (D) as an option, you see remind is the best possible answer choice.

33. B
Since the puppy was going to be left behind, we probably need a word that means unhappy. Dejected means unhappy. The puppy would not be relieved or excited if he were left behind, so (A) and (D) are incorrect.

34. C
The ideal solution would be the best solution. It means the perfect solution.

SECTION 2: QUANTITATIVE REASONING

1. A
8 - x = 4, so x = 4. 10 + y = 12, so y = 2. That means x - y is the same as 4 - 2.

2. A
First, figure out how many students brought other pets. Fourteen students brought dogs, birds, and cats, so that means six students brought other pets. The fraction is 6/20, which reduces to 3/10. You might have incorrectly chosen (B) since it has the number 6 in it.

3. C
You have 8 x 2 = 16 and 6 x 2 = 12. So 8 x 2 x 6 x 2 equals 16 times 12, (C).

4. C
Five laps in 15 minutes means 3 minutes per lap. If Jennifer and José want to swim 35 laps at 3 minutes each, that would take 105 minutes.
5. B
A square has 4 equal sides. Sixteen divided by 4 is 4. If you divided by 2, you might have gotten an incorrect answer of 8, (D).

6. A
The decimal 0.0005 is equivalent to \( \frac{5}{10,000} \), which is the smallest number given. The farther away a digit is to the right of the decimal point, the smaller the place that digit is in.

7. C
Two-thirds is equal to \( \frac{10}{15} \) because \( 2 \times 5 = 10 \) and \( 3 \times 5 = 15 \).

8. C
Grapes are the only fruit included in both circles.

9. D
A prime number is a number greater than 1 that can be divided evenly only by itself and by 1. Nine is not a prime number because it can be divided by 3. You might have suspected (D) was incorrect because 90 is divisible by 9, but 9 is not prime.

10. C
Divide 2 by 40 to get 0.05, which is the same as 5 percent. You might have guessed 4 percent since the original number was 40, but that would be incorrect.

11. B
The interval from 3 to 4 is divided into 8 equal segments, so each segment has a length of \( \frac{1}{8} \). Since there are 3 segments to where the arrow is pointing, the arrow is pointing to \( 3 \frac{3}{8} \).

12. A
The shaded region shows people who drive cars and trucks. You might have guessed (D), since cars, trucks, and motorcycles are all included in the diagram, but the question asks you to look at the shaded region.

13. A
Since this is a race time, for Andrew to beat the record means his time is 0.1 second less than the record. Line up the decimal points to solve:

\[
\begin{array}{c|c|c|c|c}
& & 1 & 3 & .71 \\
- & .1 & & & \\
\hline
& & 1 & 3 & .61 \\
\end{array}
\]

14. C
\( \frac{5}{6} \) of 24 is \( \frac{5}{6} \times 24 = 20 \) hours.

15. A
Volume is length \( \times \) width \( \times \) height. The box with the smallest volume is the one in (A), \( 2 \times 3 \times 4 = 24 \) cubic inches.

16. A
(A) shows the numbers from smallest to largest.

17. B
The decimal 0.65 = \( \frac{65}{100} \) (sixty-five hundredths). (D), 65, is tempting, but you must remember to change your fraction to a decimal.

18. C
The pattern is that each number adds twice the difference between the previous two terms: \(+2, +4, +8, +16, +32, +64\), and so on. \( 63 + 64 = 127 \).
19. D
To find Christopher's age, multiply his son's age (4) by 9.

20. A
You have $15 + 40 + 10 = 65$ percent. Subtract that number from 100 percent and you get 35 percent. Then $\frac{35}{100}$ reduces to $\frac{7}{20}$. If you forgot to subtract from 100, you might have gotten wrong answer (C).

21. B
The 5 is in the hundredths place. From the decimal, moving right, the places are as follows: tenths, hundredths, thousandths.

22. D
Area equals length $\times$ width. If you had added instead of multiplied, except for the unit square feet, you would have gotten an incorrect answer of (A).

23. B
Congruent pools have the same measurements. A congruent figure is the same shape and size as the original figure.

24. B
The decimal equivalent of 30% is 0.3. So $0.3 \times 300 = $90.

25. D
The fraction $\frac{8}{20}$ reduces to $\frac{2}{5}$, not $\frac{1}{4}$. You can use the process of elimination to solve this question.

26. C
Let's approximate: 4 miles plus 4 miles plus 8 miles—the drive is about 16 miles.

27. B
Cecile spent a total of $1.15 + 3.49 = 4.64$. From $10.00, that means $5.36 is left. Make sure to line up the decimal points when calculating.

28. A
The number of students cannot exceed 50. (A) is the only combination of classes that is less than or equal to 50.

29. A
One bag of dog food costs $19.85; 2 bags of cat food would cost $18.48.

30. C
The number of items in the cart must be a multiple of 3. Forty-two is divisible by 3 without a remainder, so 42 is a multiple of 3.

31. A
The shape has been reflected (flipped as if in a mirror).

32. B
Divide 75 by 60 to find the answer. (A) and (D) are tricky because you might think you should be dividing by 10 or 100, but they are incorrect.

33. B
Multiply 24 by 3 to get 72 minutes. Since there are 60 minutes in an hour, that's the same as 1 hour 12 minutes.

34. D
More of the circle is unshaded, so the number has to be higher than 850.

35. A
Fifteen miles divided by 20 minutes = 0.75 miles per minute. Thirty miles divided by 0.75 miles per
minute = 40 minutes. You could also have realized that if Rebecca and Ian are driving at the same speed, it will take Ian twice as long to drive twice as far.

2 × 20 = 40 minutes. If you had added Rebecca’s 20 minutes to her 30 miles, you would have gotten the number in incorrect answer (B).

36. D
The number must be divisible by 3 with no remainder.

37. D
Solve this problem by thinking of three groups: one group that likes cats and two groups that like dogs. Divide 45 by 3 to see that there are 15 students in each group. There are 2 dog groups, so multiply 15 × 2 to get 30.

38. D
A whole number has no fraction or decimal point. Also, the number has to be greater than 15, so (D) is the only possible answer.

SECTION 3: READING COMPREHENSION

Whale Sharks Passage

1. C
This is a descriptive passage. The other three answer choices are details included in the passage, but none gives the purpose or main idea of the passage.

2. A
The passage states that most female sharks are larger than the males. As for (B), the passage does state that whale sharks are beautiful, though it doesn’t say anything about the females being more beautiful than the males.

3. B
A predator is a hunter—one that preys or destroys. The meaning is implied by the text: “You would think that with such a massive body this shark would be a fierce predator, but this mammoth fish is quite docile. It likes its solitude.” The other three answer choices are words used in the passage, but none of them mean the same thing as predator.

4. A
The whale shark’s teeth are largely useless. Since you are asked which answer choice is NOT true, you can go back to the passage to find the three that are true. Then, use the process of elimination.

5. D
You can reread the last paragraph of the passage to find out that whale sharks will probably ignore divers, or pay no attention to them.

Ice Cream Truck Passage

6. C
The function of the passage is to describe a summer treat. It does not challenge, prove, or teach anything.

7. A
To “hem and haw” means to take one’s time in choosing. Read the context of the words surrounding this phrase, and you will see that it suggests taking one’s time.
8. A
When a passage uses the author's own voice, and when it uses the pronouns I and me, it is written in first person. That means the story is told from the author's perspective.

9. C
You must find the answer choice that is NOT true here. (C) is not true: Though the author usually gets an orange push-up, that's not always the case. The other three answer choices are indeed stated in the passage.

10. D
Since the writer needs permission to grab change and run to catch the truck but is not allowed off of the street, she is probably a child. A baby or toddler would not be able to run out to the ice cream truck, and a parent would not need permission to go to the ice cream truck.

**Yard Work Passage**

11. A
"The yard had potential" means the yard could look good if some work was done to it. You may have chosen (B) because the yard was indeed full of weeds and it did need work, but since that's not what the question asked, it is incorrect.

12. C
Bailey wanted the yard to look charming. He and his friends were busy all day, but that is not how the yard looked.

13. D
Bailey and Nolan planted ferns and marigolds under an olive tree that was already there. You might have chosen the incorrect answer of (A). Bailey and Nolan did some weeding, but they weeded in the front yard, not the back.

14. D
Janet had to fill in the holes before she could do the rest of her work.

15. A
Lilia and Nathan left room to plant annuals at a later time, but they did not actually do it that day.

**Adventure Camps Passage**

16. C
The purpose of the passage is to excite you about going to adventure camp. It does not challenge you to change your life, only to try something new.

17. D
The meaning of exhilaration is implied in the sentence. It means excitement or stimulation.

18. D
Use the process of elimination to see that being with friends is not mentioned.

19. A
One might do yoga or climb a mountain or go backpacking while there, but no matter what activity one chose, adventure camp would challenge a kid.
20. C
A cautious person would test the water before jumping into it.

**Dog Care Passage**

21. B
The passage is intended to give directions for taking care of Samson and Fido. Feeding, walking, and giving medicine are mentioned, but those answers are all details that are part of the overall care. The main idea of the passage is reflected in (B).

22. A
Since the dog food bowl is left full all day, the dogs can eat whenever they are hungry.

23. A
Since the pills have to be hidden in bread or peanut butter, Samson must not like the taste of them. He would probably spit them out if given them plain. Chances are, he likes the taste of peanut butter or bread. He may also be spoiled, but that doesn't explain why he needs his pills hidden in something sweet.

24. D
Fido stares and grunts when she needs to go out. The other three choices are not mentioned in the text.

25. B
The dogs get a piece of bread as a breakfast treat. Though the text does mention the other choices, you are asked to identify the treat the dogs get after their morning walk.

**SECTION 4: MATH ACHIEVEMENT**

1. A
To solve, read each answer choice individually:

(A) Fifty-three thousand, nine hundred fourteen—YES
(B) Five hundred three thousand, nine hundred fourteen—NO
(C) Five hundred thirty thousand, nine hundred fourteen—NO
(D) Five hundred thirty-nine thousand, fourteen—NO

2. D
You know \( \frac{6}{18} \) is less than \( \frac{1}{2} \) because the numerator 6 of \( \frac{6}{18} \) is less than half of the denominator 18. Also, \( \frac{1}{2} \) is less than each of \( \frac{5}{6} \) and \( \frac{9}{10} \) because the numerator of each of those two fractions is greater than half of the denominator. So we must compare \( \frac{5}{6} \) with \( \frac{9}{10} \) to find the greatest fraction. The easiest way to compare these fractions is to convert them to decimals: \( \frac{5}{6} = 0.83 \) and \( \frac{9}{10} = 0.9 \). So \( \frac{9}{10} \) is the largest fraction.

3. D
\( \frac{1}{5} + \frac{2}{3} = \frac{3}{15} + \frac{10}{15} = \frac{13}{15} \). You might have chosen (C) if you had simply added the numerators and denominators together, but that is not the correct way to solve.

4. B
400 + 950 = 1,350

5. D
The product is the answer when you multiply: 11 \( \times 3 = 33 \). If you didn't know that product means to multiply, you might have added and gotten (C), which is 14.
6. C
5,772 ÷ 6 = 962.

7. D
To solve, turn the question around: 50 + 19 – 8 = ___. If you forgot to change your signs, you would get 39, which is (C). You have to change + to – when you move the numbers across the equal sign. The answer is 61.

8. C
15 × 300 = 4,500. A good rule of thumb is that there are the same number of zeros at the end of a number in the question as in the answer.

9. D
Line up the decimal points before you subtract. You have to borrow in order to find the answer.

   1 2
   4 . 2
   5 3 . 0 9

   9 . 3 4
   4 3 . 7 5

10. D
Convert \( \frac{2}{3} \) to a fraction with a denominator of 15. Since \( 3 \times 5 = 15 \), then \( \frac{2}{3} = \frac{2 \times 5}{3 \times 15} = \frac{10}{15} \). So __ is 10.

11. C
There are 60 seconds in a minute. Sixty divided by 6 = 10. She twirls her hair 10 times in a minute.

12. B
This question would be a good one to Backsolve. Plug in the answer choices and see which one works. You could also move the numbers across the equal signs. You have to change + to – and you have to change – to +. So ___ = 40 – 16 + 5. The answer is 29.

13. B
Eighty percent is the same as 0.80. To find out how much weight the puppy has gained, multiply: 4 × 0.80 = 3.2. Add the original weight (4 pounds) to the gained weight (3.2). Then 4 + 3.2 = 7.2.

14. B
Substitute in 5 for \( x \) and see which answer choice results in a true statement. When you solve, choice (B) becomes 14 = 14, which is the only true statement here.

15. C
The numbers on the right-hand column skip by threes: 9, 12, 15 (and are 12 more than the number in the left column). Fifteen plus 3 is 18 (and 6 plus 12 is 18), so that must be the missing number.

16. B
Plug 9 into each answer choice. For (B), after you have substituted, you must find the value of what is in parentheses first, then multiply by 3. If you tried to multiply before you subtracted, you would have gotten an incorrect value.

17. B
The sum is the result of addition. So 25 + 30 = 55. If you multiplied the numbers, you would have gotten (D), which is incorrect.
18. A
You have $20 - $8.96 = $11.04. You must line up the decimal points and borrow.

19. A
You must borrow to solve this subtraction question.

\[
\begin{array}{c}
\text{10} \\
\text{8 0 0} \\
\text{4 0 9} \\
\hline
\text{9 1}
\end{array}
\]

20. D
The product is the result of multiplication. Here, \(5 \times 20 = 100\). If you added you might have come up with (B), which is incorrect.

21. D
If \(8 + a = 15\), then \(a = 15 - 8 = 7\). If \(6 + b = 14\), then \(b = 14 - 6 = 8\). \(a = 7\) and \(b = 8\), so \(a + b\) is the same as \(7 + 8\).

22. B
If \(a = b\) and \(b = c\) then it follows logically that \(a = c\).

23. A
The diameter is the full length across the circle. The radius is the length halfway across. If we’re given that the diameter is 8 cm, the radius is half of that: 4 cm. If you doubled the length of 8 cm, you would have gotten 16, which would have been incorrect.

24. C
To find the perimeter, add the lengths of all four sides: \(12 + 6 + 12 + 6 = 36\) inches.

25. B
A cube is made up of six squares. The six squares in the figure can be folded into a cube.

26. D
Volume = Length \times Width \times Height. The volume in cubic feet is \(5 \times 4 \times 3 = 60\).

27. D
Line up the decimal points to add.

\[
\begin{array}{c}
5.123 \\
\text{2.627} \\
\hline
7.750
\end{array}
\]

28. D
Since \(n\) is unknown, the answer cannot be determined.

29. C
There is only 0.01 difference between 100.11 and 100.1. If you weren’t sure, you could subtract for each to solve.

30. D
Find a common denominator. The lowest common denominator is 8. Convert \(\frac{1}{4}\) to \(\frac{2}{8}\). Then add: \(\frac{2}{8} + \frac{5}{8} = \frac{7}{8}\).