1. Bonnie has twice as many cousins as Robert. George has 5 cousins, which is 11 less than Bonnie has. How many cousins does Robert have? a. 17 b. 21 c. 4 d. 8

2. Oscar sold 2 glasses of milk for every 5 sodas he sold. If he sold 10 glasses of milk, how many sodas did he sell? a. 45 b. 20 c. 25 d. 10

3. Justin earned scores of 85, 92, and 95 on his science tests. What does he need to earn on his next science test to have an average (arithmetic mean) of 93%? a. 93 b. 100 c. 85 d. 96

4. Brad’s class collected 320 cans of food. They boxed them in boxes of 40 cans each. How many boxes did they need? a. 280 b. 10 c. 8 d. 5

5. Joey participated in a dance-a-thon. His team started dancing at 10 A.M. on Friday and stopped at 6 P.M. on Saturday. How many hours did Joey’s team dance? a. 52 b. 56 c. 30 d. 32

6. Which expression has an answer of 18? a. 2 × 5 + 4 b. 2 × (4 + 5) c. 5 × (2 + 4) d. 4 × 2 + 5

7. Callie’s grandmother pledged $0.50 for every mile Callie walked in her walk-a-thon. Callie walked 9 miles. How much does her grandmother owe? a. $4.50 b. $18.00 c. $5.00 d. $9.00

8. What is the square root of 36? a. 12 b. 72 c. 18 d. 6

9. Mr. Brown plowed 6 acres in 1 hour. At this rate, how long will it take him to plow 21 acres? a. 3 hours b. 4 hours c. 3.5 hours d. 4.75 hours

10. What is the prime factorization of 84? a. 42 × 2 b. 2 × 2 × 4 × 6 c. 2 × 7 × 6 d. 2 × 2 × 3 × 7

11. What is 25? a. 10 b. 15 c. 32 d. 16

12. The low temperature in Anchorage, Alaska today was −4°F. The low temperature in Los Angeles, California was 63°F. What is the difference in the two low temperatures? a. 59° b. 67° c. 57° d. 14°

13. The Robin’s Nest Nursing Home had a fundraising goal of $9,500. By the end of the fundraiser, they had exceeded their goal by $2,100. How much did they raise? a. $7,400 b. $13,600 c. $10,600 d. $11,600

14. Mount Everest is 29,028 ft high. Mount Kilimanjaro is 19,340 ft high. How much taller is Mount Everest? a. 9,688 feet b. 10,328 feet c. 11,347 feet d. 6,288 feet

15. The area of a square is 64 cm2. What is the length of one side of the square? a. 8 cm b. 16 cm c. 32 cm d. 24 cm

16. Mrs. Farrell’s class has 26 students. Only 21 were present on Monday. How many were absent? a. 15 b. 5 c. 4 d. 16

17. Lucy’s youth group raised $1,569 for charity. They decided to split the money evenly among 3 charities. How much will each charity receive? a. $784.50 b. $423.00 c. $523.00 d. $341.00

18. Jason made 10 two-point baskets and 2 three-point baskets in Friday’s basketball game. He did not score any other points. How many points did he score? a. 22 b. 12 c. 24 d. 26

19. Jeff left Hartford at 2:15 P.M. and arrived in Boston at 4:45 P.M. How long did the drive take him? a. 2.5 hours b. 2.3 hours c. 3.25 hours d. 2.75 hours

20. Shane rolls a die numbered 1 through 6. What is the probability Shane rolls a 5? a. 5/6 b. 1/6 c. 1/5 d. 1/2

21. Susan traveled 114 miles in 2 hours. If she keeps going at the same rate, how long will it take her to go the remaining 285 miles of her trip? a. 5 hours b. 3 hours c. 7 hours d. 4 hours

22. A ﬂight from Pittsburgh to Los Angeles took 5 hours and covered 3,060 miles. What was the plane’s average speed? a. 545 mph b. 615 mph c. 515 mph d. 612 mph

23. Larry purchased 3 pairs of pants for $24 each and 5 shirts for $18 each. How much did Larry spend? a. $42 b. $72 c. $162 d. $186

24. How many square centimeters are in one square meter? a. 100 sq cm b. 10,000 sq cm c. 144 sq cm d. 100,000 sq cm

25. Raul’s bedroom is 4 yards long. How many inches long is the bedroom? a. 144 inches b. 48 inches c. 400 inches d. 4,000 inches

26. Jeff burns 500 calories per hour bicycling. How long will he have to ride to burn 750 calories? a. 3 hours b. 2 hours c. 1.5 hours d. .5 hour

27. The temperature at 6 P.M. was 31°F. By midnight, it had dropped 40°F. What was the temperature at midnight? a. 9°F b. −9°F c. −11°F d. 0°F

28. The total ticket sales for a soccer game were $1,260; 210 tickets were purchased. If all the tickets are the same price, what was the cost of a ticket? a. $6.00 b. $3.50 c. $10.00 d. $7.50

29. Sherman took his pulse for 10 seconds and counted 11 beats. What is Sherman’s pulse rate in beats per minute? a. 210 beats per minute b. 110 beats per minute c. 66 beats per minute d. 84 beats per minute

30. Jennifer ﬂipped a coin three times and got heads each time. What is the probability that she gets heads on the next ﬂip? a. 1 b. 1/16 c. 1/2 d. 0

31. Jody’s English quiz scores are 56, 93, 72, 89, and 87. What is the median of her scores? a. 72 b. 87 c. 56 d. 85.6

32. What is the greatest common factor of 24 and 64? a. 8 b. 4 c. 12 d. 36

33. Twelve coworkers go out for lunch together and order three pizzas. Each pizza is cut into eight slices. If each person gets the same number of slices, how many slices will each person get? a. 4 b. 3 c. 5 d. 2

34. Marvin is helping his teachers plan a ﬁeld trip. There are 125 people going on the ﬁeld trip and each school bus holds 48 people. What is the minimum number of school buses they will need to reserve for the trip? a. 3 b. 2 c. 4 d. 5

35. Which number in the answer choices below is not equivalent to the other numbers? a. 0.6 b. 60% c. 3/5 d. 6%

36. Lance has 70 cents, Margaret has three-fourths of a dollar, Guy has two quarters and a dime, and Bill has six dimes. Who has the most money? a. Lance b. Margaret c. Guy d. Bill

37. The students at Norton School were asked to name their favorite type of pet. Of the 430 students surveyed, 258 said that their favorite type of pet was a dog. Suppose that only 100 students were surveyed, with similar results, about how many students would say that a dog is their favorite type of pet? a. 58 b. 60 c. 72 d. 46

38. A group of ﬁve friends went out to lunch. The total bill for the lunch was $53.75. Their meals all cost about the same, so they wanted to split the bill evenly. Without considering tip, how much should each friend pay? a. $11.25 b. $12.85 c. $10.75 d. $11.50

39. The value of a computer is depreciated over ﬁve years for tax purposes (meaning that at the end of ﬁve years, the computer is worth $0). If a business paid $2,100 for a computer, how much will it have depreciated after 2 years? a. $420 b. $1,050 c. $820 d. $840

40. Steve earned a 96% on his ﬁrst math test, a 74% on his second test, and an 85% on his third test. What is his test average? a. 91% b. 85% c. 87% d. 82%

41. A national park keeps track of how many people per car enter the park. Today, 57 cars had 4 people, 61 cars had 2 people, 9 cars had 1 person, and 5 cars had 5 people. What is the average number of people per car? Round to the nearest person. a. 2 b. 3 c. 4 d. 5

42. A large pipe dispenses 750 gallons of water in 50 seconds. At this rate, how long will it take to dispense 330 gallons? a. 14 seconds b. 33 seconds c. 22 seconds d. 27 seconds

43. The light on a lighthouse blinks 45 times a minute. How long will it take the light to blink 405 times? a. 11 minutes b. 4 minutes c. 9 minutes d. 6 minutes

44. A die is rolled and a coin is tossed. What is the probability that a 3 will be rolled and a tail tossed? a. 1/2 b. 1/6 c. 1/12 d. 1/8

45. Wendy has 5 pairs of pants and 8 shirts. How many different combinations can she make with these items? a. 13 b. 24 c. 40 d. 21

46. Audrey measured the width of her dining room in inches. It is 150 inches. How many feet wide is her dining room? a. 12 feet b. 9 feet c. 12.5 feet d. 10.5 feet

47. Sharon wants to make 25 half-cup servings of soup. How many ounces of soup does she need? a. 100 ounces b. 250 ounces c. 200 ounces d. 6.25 ounces

48. Justin weighed 8 lb 12 oz when he was born. At his two-week check-up, he had gained 8 ounces. What was his weight in pounds and ounces? a. 9 lb b. 8 lb 15 oz c. 9 lb 4 oz d. 10 lb 2 oz

49. One inch equals 2.54 centimeters. The dimensions of a table made in Europe are 85 cm wide by 120 cm long. What is the width of the table in inches? Round to the nearest tenth of an inch. a. 30 inches b. 215.9 inches c. 33.5 inches d. 47.2 inches

50. A bag contains 3 red, 6 blue, 5 purple, and 2 orange marbles. One marble is selected at random. What is the probability that the marble chosen is blue? a. 4/13 b. 3/8 c. 3/16 d. 3/5

51. The operator of an amusement park game kept track of how many tries it took participants to win the game. The following is the data from the ﬁrst ten people: 2, 6, 3, 4, 6, 2, 8, 4, 3, 5 What is the median number of tries it took these participants to win the game? a. 8 b. 6 c. 4 d. 2

52. Max goes to the gym every fourth day. Ellen’s exercise routine is to go every third day. Today is Monday and both Max and Ellen are at the gym. What will the day of the week be the next time they are BOTH at the gym? a. Sunday b. Wednesday c. Friday d. Saturday

53. Danny is a contestant on a TV game show. If he gets a question right, the points for that question are added to his score. If he gets a question wrong, the points for that question are subtracted from his score. Danny currently has 200 points. If he gets a 300-point question wrong, what will his score be? a. −100 b. 0 c. −200 d. 100

54. Write 3.5 × 104 in decimal notation. a. 3.50000 b. 35,000 c. 350,000 d. 0.00035

55. The Ravens played 25 home games this year. They had 9 losses and 2 ties. How many games did they win? a. 14 b. 11 c. 13 d. 12

56. The temperature at midnight was 4°F. By 2 A.M. it had dropped 9°F. What was the temperature at 2 A.M.? a. 13°F b. −5°F c. −4°F d. 0°F

57. Find the next number in the following pattern. 320, 160, 80, 40, . . . a. 35 b. 30 c. 10 d. 20

58. Which of the following terms does NOT describe the number 9? a. prime b. integer c. real number d. whole number

59. Which expression below is equal to 5? a. (1 + 2)2 b. 9 – 22 c. 11 − 10 × 5 d. 45 ÷ 3 × 3

60. A bus picks up a group of tourists at a hotel. The sightseeing bus travels 2 blocks north, 2 blocks east, 1 block south, 2 blocks east, and 1 block south. Where is the bus in relation to the hotel? a. 2 blocks north b. 1 block west c. 3 blocks south d. 4 blocks east

61. Each week Jaime saves $25. How long will it take her to save $350? a. 12 weeks b. 14 weeks c. 16 weeks d. 18 weeks

62. Ashley’s car insurance costs her $115 per month. How much does it cost her per year? a. $1,150 b. $1,380 c. $980 d. $1,055

63. The ratio of boys to girls at the dance was 3:4. There were 60 girls at the dance. How many boys were at the dance? a. 45 b. 50 c. 55 d. 40