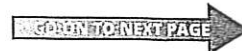


Subtest 2: Arithmetic Reasoning

TIME: 36 minutes for 30 questions

DIRECTIONS: This test contains questions about arithmetic. Each question is followed by four possible answers. Decide which answer is correct and then mark the space on your answer sheet that has the same number and letter as your choice. Use scratch paper for any figuring you want to do. A calculator is not allowed.

1. If a car is towed 12 miles to the repair shop and the tow charge is \$3.50 per mile, how much does the tow cost?
(A) \$12.00
(B) \$3.50
(C) \$42.00
(D) \$100.00
2. The sum of two numbers is 70. One number is 8 more than the other. What's the smaller number?
(A) 31
(B) 33
(C) 35
(D) 36
3. A sales manager buys antacid in bottles by the gross. If he goes through 3 bottles of antacid every day, how long will the gross last?
(A) 144 days
(B) 3 days
(C) 20 days
(D) 48 days
4. Jenny's test grades are 93, 89, 96, and 98. If she wishes to raise her average to 95, what does she need to score on her next test?
(A) 100
(B) 99
(C) 97
(D) 95
5. A server earns an average tip of 12% of the cost of the food she serves. If she serves \$375 worth of food in one evening, how much money in tips will she earn on average?
(A) \$37
(B) \$45
(C) \$42
(D) \$420
6. How many square feet of carpeting are needed to carpet a 12-foot-x-12-foot room?
(A) 24
(B) 120
(C) 48
(D) 144
7. Carpet stain protector costs \$0.65 per square yard to apply. How much will it cost to apply the protector to a 16-foot-x-18-foot carpet?
(A) \$187.20
(B) \$62.40
(C) \$20.80
(D) \$96.00
8. A printing plant that produces baseball cards has a monthly overhead of \$6,000. It costs 18 cents to print each card, and the cards sell for 30 cents each. How many cards must the printing plant sell each month in order to make a profit?
(A) 30,000
(B) 40,000
(C) 50,000
(D) 60,000



9. Joe received an hourly wage of \$8.15. His boss gave him a 7% raise. How much does Joe make per hour now?
- (A) \$0.57
 - (B) \$8.90
 - (C) \$8.72
 - (D) \$13.85
10. Alice leaves her house, driving east at 45 miles per hour (mph). Thirty minutes later, her husband Dave notices she forgot her cellphone and sets off after her. How fast must Dave travel in order to catch up with Alice 3 hours after he leaves?
- (A) 49 mph
 - (B) 50.5 mph
 - (C) 52.5 mph
 - (D) 54 mph
11. A baker made 20 pies. A Boy Scout troop buys one-fourth of his pies, a preschool teacher buys one-third of his pies, and a caterer buys one-sixth of his pies. How many pies does the baker have left?
- (A) $\frac{3}{4}$
 - (B) 15
 - (C) 12
 - (D) 5
12. Miriam bought five cases of motor oil on sale. A case of motor oil normally costs \$24.00, but she was able to purchase the oil for \$22.50 a case. How much money did Miriam save on her entire purchase?
- (A) \$7.50
 - (B) \$1.50
 - (C) \$8.00
 - (D) \$22.50
13. A security guard walks the equivalent of six city blocks when he makes a circuit around the building. If he walks at a pace of eight city blocks every 30 minutes, how long will it take him to complete a circuit around the building, assuming he doesn't run into any thieves?
- (A) 20.00 minutes
 - (B) 3.75 minutes
 - (C) 22.50 minutes
 - (D) 7.5 minutes
14. The population of Grand Island, Nebraska, grew by 600,000 people between 1995 and 2005, one-fifth more than the town council predicted. The town council originally predicted the city's population would grow by
- (A) 400,000
 - (B) 500,000
 - (C) 300,000
 - (D) 100,000
15. Joan is taking an admissions examination. If she has to get at least 40 of the 60 questions right to pass, what percent of the questions does she need to answer correctly?
- (A) 30%
 - (B) 40%
 - (C) $66\frac{1}{3}\%$
 - (D) $66\frac{2}{3}\%$
16. A teacher deposits \$3,000 in a retirement fund. If she doesn't add any more money to the fund, which earns an annual interest rate of 6%, how much money will she have in 1 year?
- (A) \$180
 - (B) \$3,006
 - (C) \$3,180
 - (D) \$6,000

17. The high school track measures one-quarter of a mile around. How many laps would you have to run in order to run three and a half miles?
- (A) 12
 - (B) 14
 - (C) 16
 - (D) 18
18. Karl is driving in Austria, where the speed limit is posted in kilometers per hour. The car's speedometer shows that he's traveling at a rate of 75 kilometers per hour. Karl knows that a kilometer is about $\frac{5}{8}$ of a mile. Approximately how many miles per hour is Karl traveling?
- (A) 47
 - (B) 120
 - (C) 50
 - (D) 53
19. A carpenter earns \$12.30 an hour for a 40-hour week. His overtime pay is $1\frac{1}{2}$ times his base pay. If he puts in a 46-hour week, how much is his weekly pay?
- (A) \$602.70
 - (B) \$492.00
 - (C) \$565.80
 - (D) \$110.70
20. An office building has 30 employees and provides 42 square feet of work space per employee. If five more employees are hired, how much less work space will each employee have?
- (A) 6 square feet
 - (B) 7 square feet
 - (C) 7.5 square feet
 - (D) 36 square feet
21. Stan bought a monster truck for \$2,000 down and payments of \$450 a month for five years. What's the total cost of the monster truck?
- (A) \$4,250
 - (B) \$29,000
 - (C) \$27,000
 - (D) \$34,400
22. Darla spent \$120.37 on groceries in January, \$108.45 in February, and \$114.86 in March. What was the average monthly cost of Darla's groceries?
- (A) \$343.68
 - (B) \$110.45
 - (C) \$114.86
 - (D) \$114.56
23. Keith is driving from Reno to Kansas City to meet his girlfriend. The distance between the two cities is 1,650 miles. If Keith can average 50 miles per hour, how many hours will it take him to complete his trip?
- (A) 8 hours
 - (B) 30 hours
 - (C) 33 hours
 - (D) 82 hours
24. Michael needs 55 gallons of paint to paint an apartment building. He would like to purchase the paint for the least amount of money possible. Which of the following should he buy?
- (A) two 25-gallon buckets at \$550 each
 - (B) eleven 5-gallon buckets at \$108 each
 - (C) six 10-gallon buckets at \$215 each
 - (D) fifty-five 1-gallon buckets at \$23 each
25. As a member of FEMA, you're required to set up a contingency plan to supply meals to residents of a town devastated by a tornado. A breakfast ration weighs 12 ounces, and the lunch and dinner rations weigh 18 ounces each. Assuming a food truck can carry 3 tons and that each resident will receive 3 meals per day, how many residents can you feed from one truck during a 10-day period?
- (A) 150 residents
 - (B) 200 residents
 - (C) 250 residents
 - (D) 300 residents



26. A train headed south for Wichita left the station at the same time a train headed north for Des Moines left the same station. The train headed for Wichita traveled at 55 miles per hour. The train headed for Des Moines traveled at 70 miles per hour. How many miles apart are the trains at the end of 3 hours?
- (A) 210 miles
(B) 165 miles
(C) 125 miles
(D) 375 miles
27. A carpenter needs to cut four sections, each 3 feet, 8 inches long, from a piece of molding. If the board is only sold by the foot, what's the shortest length of board she can buy?
- (A) 15 feet
(B) 14 feet
(C) 16 feet
(D) 12 feet
28. Kiya had only one coupon for 10% off one frozen turkey breast. The turkey breasts cost \$8.50 each, and Kiya wanted to buy two. How much did she pay?
- (A) \$16.15
(B) \$17.00
(C) \$15.30
(D) \$7.65
29. A recruiter travels 1,100 miles during a 40-hour workweek. If she spends $\frac{2}{5}$ of her time traveling, how many hours does she spend traveling?
- (A) 22
(B) $5\frac{1}{2}$
(C) 16
(D) 8
30. Your car uses gasoline at the rate of 21 miles per gallon. If gasoline costs \$2.82 per gallon and you drive for 7 hours at a speed of 48 miles per hour, how much will you pay for gasoline for the trip?
- (A) \$38.18
(B) \$45.12
(C) \$47.73
(D) \$59.27

DO NOT TURN THE PAGE UNTIL TOLD TO DO SO

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DO NOT RETURN TO A PREVIOUS TEST