

GRE

Quant Reasoning Assessment

Word Problems 2: Percents & Mixtures

Total Questions: 20

Duration: 20 Min

SECTION: I – MIXTURES

1. A 10 liter mixture of cranberry juice and water contains juice and water in the ratio of 3 : 2. 5 liters of the mixture are removed and replaced with pure juice and the operation is repeated once more. At the end of the two removals and replacements, what is the ratio of juice to water in the resulting mixture?
 - A. 5 : 3
 - B. 6 : 4
 - C. 8 : 2
 - D. 17 : 3
 - E. 9 : 1

2. Three quarts of a bleaching chemical, Minum, contains 5 percent hydrogen peroxide and water. A different type of bleaching chemical, Maxim, which contains 20 percent hydrogen peroxide, will be mixed with the three quarts of Minum. How much of type Maxim should be added to the three quarts of Minum so that the resulting mixture contains 15 percent hydrogen peroxide?
 - A. 3 quarts
 - B. 3.75 quarts
 - C. 4.5 quarts
 - D. 6 quarts
 - E. 9 quarts

3. A milkman adds 5 liters of water to a certain quantity of pure milk costing \$3 per liter. He sells the mixture at the same price as before and makes a profit of 20%. What is the percentage of milk in the mixture?
 - A. 83.33
 - B. 93.33
 - C. 73.33
 - D. 55
 - E. 68

4. If a scientist has x liters of a ethanol and benzene solution that is 15% benzene. if he wants to make the solution 10% benzene, how many of liters of ethanol must he add?
 - A. $3x/2$
 - B. $5x/4$
 - C. $2x/3$
 - D. $x/2$
 - E. $x/4$

SECTION: II- PERCENTS

5. In a certain shop, items were put in a show case and assigned price for January. Each month after that, the price was 10 percent less than the price for the previous month, what was the price for April?
- A. $0.4p$
 - B. $0.6p$
 - C. $0.6561p$
 - D. $0.7p$
 - E. $0.729p$
6. There are 75 more women than men enrolled in Linden College. If there are n men enrolled, then in terms of n , what percent of those enrolled are men?
- A. $\frac{n}{n+75} \%$
 - B. $\frac{n}{2n+75} \%$
 - C. $\frac{n}{100(2n+75)} \%$
 - D. $\frac{100n}{n+75} \%$
 - E. $\frac{100n}{2n+75} \%$
7. The price of a telephone was first increased by 10 percent and the new price was decreased by 25 percent. The final price was what percent of the initial price?
- A. 78%
 - B. 80 %
 - C. 82.5%
 - D. 85%
 - E. 87.5%
8. If 30 percent of 40 percent of a positive number is equal to 20 percent of w percent of the same number, what is the value of w ?
- A. 80
 - B. 60
 - C. 50
 - D. 15
 - E. 10
9. What percent of 50 is 6?
- A. 3%
 - B. $8\frac{1}{3}\%$
 - C. 12 %
 - D. 30%
 - E. $83\frac{1}{3} \%$

10. A class of 30 girls and 40 boys were sponsored for a ride. If 60 percent of the girls and 25 percent of the boys went on the ride, what percent of the class went on the ride?
- A. 30%
 - B. 35%
 - C. 40%
 - D. 50%
 - E. 70%
11. During a sale at a music store, if a customer buys one tape at full price, the customer is given a 50 percent discount on a second tape of equal or lesser value. If Linda buys two tapes that have full prices of \$15 and \$10, by what percent is the total cost of the two tapes reduced during this sale?
- A. 5%
 - B. 20%
 - C. 25%
 - D. 30%
 - E. 50%
12. A certain state requires that an application for a driver's license answer at least 80 percent of the questions on a written test correctly. If the test has 30 questions on it, at least how many of these questions must be answered correctly?
- A. 20
 - B. 21
 - C. 22
 - D. 23
 - E. 24
13. A total of 60 advertisements were sold for a school yearbook. If 20 percent of the first 20 sold were in color, 40 percent of the next 30 sold were in color, and 80 percent of the last 10 sold were in color, what percent of the 60 advertisements were in color?
- A. 30%
 - B. $33\frac{1}{3}\%$
 - C. 40%
 - D. $46\frac{2}{3}\%$
 - E. 60%
14. If 20 percent of x equal 80 percent of y , which of the following expresses y in terms of x ?
- A. $y = 16\%$ of x
 - B. $y = 25\%$ of x
 - C. $y = 60\%$ of x
 - D. $y = 100\%$ of x
 - E. $y = 400\%$ of x

15. If r is 35 percent of p and s is 45 percent of p , what is $r + s$ in terms of p ?

- A. $0.4p$
- B. $0.5p$
- C. $0.6p$
- D. $0.7p$
- E. $0.8p$

16. A person slices a pie into k equal pieces and eats one piece. In terms of k , what percent of the pie is left?

- A. $100(k - 1)\%$
- B. $\frac{100(k-1)}{k} \%$
- C. $\frac{100k}{k-1} \%$
- D. $\frac{k-1}{100} \%$
- E. $\frac{k-1}{100k} \%$

17. What is the least possible integer for which 20 percent of that integer is greater than 1.2?

- A. 2
- B. 3
- C. 4
- D. 6
- E. 7

18. What percent of 4 is 5?

- A. 75%
- B. 80%
- C. 125%
- D. 150%
- E. 180%

19. 75 percent of 88 is the same as 60 percent of what number?

- A. 100
- B. 103
- C. 105
- D. 108
- E. 110

20. A store charges \$28 for a certain type of sweater. This price is 40 percent more than the amount it costs the store to buy one of these sweaters. At an end of season sale, store employees can purchase any remaining sweater at 30 percent off the store's cost. How much would it cost an employee to purchase a sweater of this type at this sale?

- A. \$8.40
- B. \$14.00
- C. \$19.60
- D. \$20.00
- E. \$25.20

