SIMPLE PERCENT TEST

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. There were 12 students on a field trip. While outside, 25% of the students wore jackets. How many students wore jackets?
   a. 4 students  b. 6 students  c. 3 students  d. 5 students

____ 2. Everyone in Sandy’s class has to do a science project. Out of the 30 students, 80% have completed their projects. How many students still need to do their projects?
   a. 6 students  b. 54 students  c. 110 students  d. 24 students

____ 3. Estimate a 15% tip for $21.50.
   a. $3.00  b. $23.00  c. $13.00  d. $300.00

Estimate the sale price of the item.

____ 4. 20% off a bike for $431.84
   a. $180  b. $80  c. $120  d. $320

____ 5. In 2030, the Census Bureau estimates that 19 of the 50 states will have a Spanish-speaking majority. What percent of the states will have a Spanish-speaking majority?
   a. 10%  b. 13%  c. 42%  d. 38%

____ 6. Find 70% of 48.
   a. 32.6  b. 35.6  c. 33.6  d. 34.6

____ 7. Liam wants to buy a bicycle that costs $335.00. His parents say Liam must raise 20% of the money himself. How much money must Liam raise?
   a. $65.00  b. $67.00  c. $20.00  d. $33.50

Write an equation to solve. If necessary, round to the nearest percent.

____ 8. On a factory floor, 115 out of every 120 toy robots is defective. What percent of the toy robots are defective? Round your answer to the nearest hundredth.
   a. 0.96%  b. 95.83%  c. 138%  d. 1.04%

____ 9. A new law requires that 35% of an individual’s income to be invested in the stock market. Your accounts show that you need to put $405 in the stock market this year. How much did you earn this year?
   a. $1162.14  b. $1212.14  c. $1146.64  d. $1157.14

Use an equation to solve.

____ 10. 20% of what number is 27?
   a. 133.5  b. 135  c. 137.5  d. 137

____ 11. What number is 70% of 420?
   a. 300  b. 292  c. 297.5  d. 294

____ 12. What percent of 235 is 47?
   a. 20%  b. 25%  c. 500%  d. 500.5%

____ 13. The bill is $76.37. Find the amount of a 12% tip.
   a. $15.71  b. $3.82  c. $16.80  d. $9.16
14. Find the commission on a $330.00 sale if the commission is 18%.
   a. $118.33   b. $77.40   c. $59.40   d. $48.40

15. You tell your parents that you will pay the 15% tip for dinner. The bill was $130.56. You have $20.
   a. Do you have enough to pay the tip?
      b. How much should the tip be?
         a. yes; $19.60   b. no; $22.30   c. yes; $15.75   d. no; $20.15

16. Of the 300 students at Central Middle School, 20% are on the honor roll. How many students are on the honor roll?
   a. 60 students   b. 70 students   c. 50 students   d. 65 students

17. Find 78% of 380. Round to the nearest tenth of a percent if necessary.
   a. 3.8   b. 29,640.0   c. 296.4   d. 487.2

18. What percent of 67 is 33? If necessary, round to the nearest tenth of a percent.
   a. 203.0%   b. 0.5%   c. 49.3%   d. 33.0%

19. Emma already has read 6 of 20 books on her summer reading list. What percent of the books on her list has she read already?
   a. 23.1%   b. 30.0%   c. 333.3%   d. 0.3%

20. 20 is 50% of what number? If necessary, round to the nearest tenth.
   a. 10.0   b. 1000.0   c. 40.0   d. 0.4

21. Write 88.2% as a decimal.
   a. 8.82   b. 882   c. 0.882   d. 8,820

Write an equation and solve. Round to the nearest tenth where necessary.

22. 19 is what percent of 40?
   a. $19 = n \cdot 40$; 47.5%   b. $40 = 19 \cdot n$; 2.1%   c. $40 = 19 \cdot n$; 40.4%   d. $19 = n \cdot 40$; 52.3%

23. 21 is 35% of what number?
   a. $21 = 0.35 \cdot x$; 62.4   b. $x = 21 \cdot 0.35$; 7.4   c. $0.35 = 21 \cdot x$; 40.8   d. $21 = 0.35 \cdot x$; 60

24. In a survey, 480 people, or 75%, said they attended a movie at least once a month. How many people were surveyed?
   a. 405 people   b. 360 people   c. 555 people   d. 640 people
Short Answer

25. What does it mean to get a 150% salary raise?

Essay

26. Two stores carry a similar stereo for the same original price of $573. One store offers a 16% discount and the second store sells the stereo for $458.40. Which store gives the bigger percent discount? Justify your answer.

27. A car has a sticker price of $20,000 but then it was marked-down 21%. The dealer was eager to sell the car and gave you an additional discount. Your receipt says the final price is $14,000. How much was the second discount? Justify your answer.

Other

28. Jan and Leo find the total cost of a $15-item with 6% sales tax. They use two different methods:

   Jan: “I find 6% of $15 and then add the tax to $15”.
   Leo: “I take $15 and multiply by 1.06”.

   Are both methods correct? Explain your answer.

29. Suppose you have a coupon for 10% off and you use it to buy a CD which was already discounted 15%. Do you end up a discount of 25%? Explain your answer.