

## CTJan27 Online Year 6 2025 - L01 Practice Test

1. Change the decimal 0.265 into a percent.
  - a. 265%
  - b. .265%
  - c. 26.5%
  - d. 2.65%
2. Patti bought a pair of jeans that normally cost \$40 for a sale price of \$24. What was the percent discount?
  - a. 40%
  - b. 60%
  - c. 62.5%
  - d. 70%
3.  $-6 - (-4) =$ 
  - a. -10
  - b. 10
  - c. -2
  - d. 2
4. What is  $\frac{1}{9}$  as a decimal and a percent?
  - a. 1.9; 1.9 %
  - b. 0.19; 19 %
  - c.  $0.\bar{1}$ ;  $11.\bar{1}$  %
  - d. 0.11; 11 %
5. Winter boots are marked down by the amount shown on the tag. How much will a pair of boots on sale cost if they are regularly priced at \$79?



- a. \$23.70
- b. \$49.00
- c. \$55.30
- d. \$63.20

6. Fill in the  $\square$  with  $+$ ,  $-$ ,  $\times$ , or  $\div$  to make the equation true.

$$55 \square (3 + 2) = 8 \times 3 - 13$$

- a.  $+$
- b.  $\div$
- c.  $-$
- d.  $\times$

7.  $(3^2 + 6 \div 2) \times (36 \div 6 - 4) =$

- a. -24
- b. 24
- c. 18
- d. 135

8.  $8 \div \left( -\frac{1}{2} + \frac{6}{8} - 7 \right)$

- a.  $\frac{32}{27}$
- b.  $-\frac{89}{4}$
- c.  $-\frac{32}{23}$
- d.  $-\frac{32}{27}$

9.  $4 \times 6(5 \times 9) - 3$

- a. 1203
- b. 1077
- c. 93
- d. -1077
- e. -1023

10. Find the GCF of 117 and 351.

11. Write the prime factorization of 216.

12. Solve for  $r$ .

$$\frac{18}{90} = \frac{1}{r}$$

- a.  $r = 9$
- b.  $r = 5$
- c.  $r = 90$
- d.  $r = 18$

13.  $\frac{3}{4} = \frac{15}{20}$

- a. True
- b. False

14. Manny drew a scale diagram of his classroom. His real classroom is 20 feet wide. Manny's drawing is 4 centimeters (cm) wide. What is the scale factor of the drawing?

- a. 1 cm = 4 feet
- b. 1 cm = 5 feet
- c. 1 cm = 20 feet
- d. 1 cm = 80 feet

15. John climbs a cliff that is 128 feet high in 16 minutes. What is his average rate of ascent?

- a. 8 ft/min
- b. 6.5 ft/min
- c. 8 ft/hr
- d. 12.8 ft/min

16. A worker in an aircraft factory mixes epoxy in the ratio of 19 parts resin to 12 parts hardener. If the worker uses 285.5 grams of hardener, how much resin will be needed?

- a. 285.5 g
- b. 180.3 g
- c. 0.5 kg
- d. 452 g

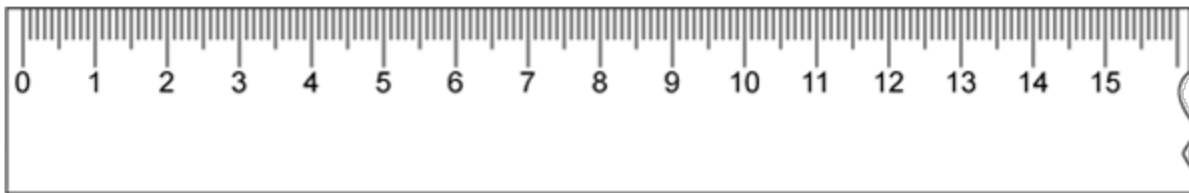
17. The rate  $\frac{15}{3}$  is the same as which of the following?

- a. 5
- b.  $\frac{3}{5}$
- c.  $\frac{3}{15}$
- d. 3

18. An electrician is installing light bulbs in a hotel. If she can install 47 light bulbs in 30 minutes, how many can she install after 4 hours if she keeps at a constant rate? Use a graph to find your answer.
- 240 bulbs
  - 188 bulbs
  - 376 bulbs
  - She took a break.
19. A bodybuilder is practicing for a big show. The equation  $y = 200x$  represents the amount of push-ups ( $y$ ) he does per set ( $x$ ). If the bodybuilder does 6 sets, how many push-ups did he do? Use a graph to find your answer.
- 200 push-ups
  - 34 push-ups
  - 33.3 push-ups
  - 1,200 push-ups
20. Find the value of X.

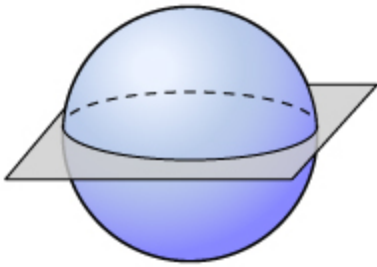
$$\frac{3}{X} = \frac{4}{12}$$

- 36
  - 9
  - 6
  - 12
21. Divide the following numbers by 100.
- (a) 345 \_\_\_\_\_
- (b) 12467 \_\_\_\_\_
- (c) 167.987 \_\_\_\_\_
22. Find the square.  $(0.4)^2$
- 0.8
  - 1.6
  - 0.16
23. Which of the following measurements can be shown with this metric ruler?



- 25 centimeters
- 2 decimeters
- 5 meters
- 55 millimeters

24. If a circle has a radius of 7, what is the diameter?
- a. 3.5
  - b. 14
  - c. 10
  - d. 7
25. A triangle has an area of  $49.5 \text{ cm}^2$ . If the base of the triangle is 9 cm, what is the height of the triangle?  
Use  $A = \left(\frac{1}{2}\right)bh$ .
- a. 5.5 cm
  - b. 11 cm
  - c. 222.75 cm
  - d. 445.5 cm
26. Which best describes the two-dimensional shape created by the cross-section shown on the sphere?

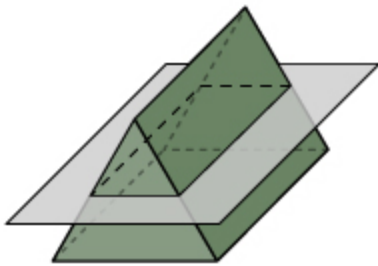


- a. oval
  - b. circle
  - c. ellipse
  - d. sphere
27. The area of square photo is 25 square inches. Angie decided to enlarge the photo by doubling the sides. What will the new area be?
- a. 50 square inches
  - b. 100 square inches
  - c. 250 square inches
  - d. 36 square inches

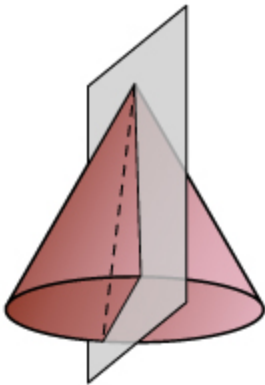
28. A cylinder is sliced through the middle, perpendicular to its base. What two-dimensional figure would be seen when viewed from the top?



- a. circle
  - b. rectangle
  - c. semi-circle
29. Which best describes the two-dimensional shape created by the cross-section shown?



- a. square
  - b. triangle
  - c. trapezoid
  - d. rectangle
30. Which best describes the two-dimensional shape created by the cross-section shown?



- a. circle
- b. ellipse
- c. triangle
- d. rectangle

31. A cereal box has a length of 8 inches, a width of  $1\frac{3}{4}$  inches, and a height of  $12\frac{1}{8}$  inches. What is the volume of the cereal box?
- a.  $169\frac{3}{4}$  square inches
  - b. 165 cubic inches
  - c.  $169\frac{3}{4}$  cubic inches
  - d. 171 square inches
32. Convert 10.56 cm to mm.
- a. 105.6 mm
  - b. 1056 mm
  - c. 1.056 mm
  - d. 0.1056 mm
33. One hectometer is equivalent to how many meters?
- a. 10
  - b. 100
  - c. 1
  - d. .01
34. Arrange the following polygons in order from least to greatest number of sides.
- Hexagon, triangle, decagon, pentagon
- a. Decagon, hexagon, pentagon, triangle
  - b. Triangle, hexagon, pentagon, decagon
  - c. Hexagon, triangle, decagon, pentagon
  - d. Triangle, pentagon, hexagon, decagon
35. How many sides and angles does an irregular nonagon have?
- a. 8 sides and 10 angles
  - b. 7 sides and 8 angles
  - c. 9 sides and 9 angles
  - d. 10 sides and 10 angles
36. A fair coin will be flipped 3 times. What is the probability that the coin will land on tails exactly once?
- a.  $\frac{1}{8}$
  - b.  $\frac{1}{3}$
  - c.  $\frac{3}{8}$
  - d.  $\frac{5}{8}$

37. Sara Lee earned scores of 98, 100, 65, 78, 98, 35, 100, 100, 45, and 50 on her reading tests. What is the mean of her test scores?
- a. 769
  - b. 1000
  - c. 14
  - d. 76.9
  - e. 30
  - f. -11
  - g. 34
  - h. 546

38. A restaurant display case has the following tea bag selections and number of bags available for each kind.

Black Tea 15  
Cinnamon 10  
Green Tea 15  
Lemon 4  
Raspberry 6

What is the probability that a tea bag randomly selected from the case will be cinnamon?

- a.  $\frac{1}{50}$
  - b.  $\frac{1}{10}$
  - c.  $\frac{1}{5}$
  - d.  $\frac{1}{4}$
39. Three golfers are competing for the longest distance. Their longest distances in yards over a period of an hour are as follows:
- First golfer: 260, 267, 234, 290, 267  
Second golfer: 261, 260, 260, 273, 260  
Third golfer: 287, 281, 276, 260, 281
- Which golfer has the highest mode?
- a. First golfer
  - b. Second golfer
  - c. Third golfer
  - d. They are tied



40. Which of the following sets of numbers has the smallest range?

Set 1: 43, 77, 46, 10, 68, 74

Set 2: 85, 27, 93, 37, 46, 71

Set 3: 63, 62, 12, 76, 49, 91

a. They all have the same median

b. Set 1

c. Set 2

d. Set 3

41. Probability can be expressed as a

a. fraction.

b. decimal.

c. percent.

d. all of these

42. You roll 2 dice. How many outcomes are possible?



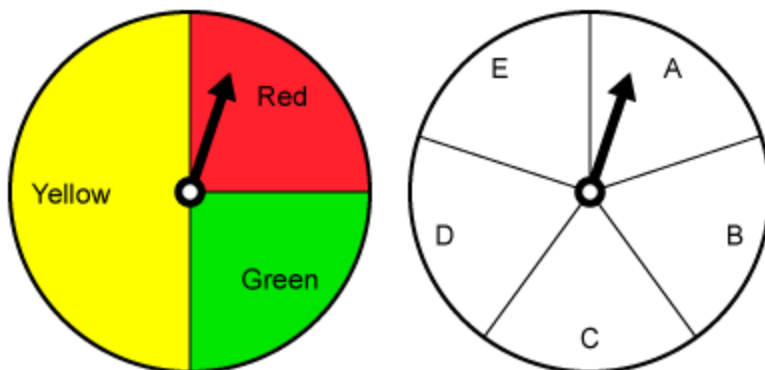
a. 2

b. 6

c. 12

d. 36

43. You spin the two spinners shown. How many outcomes are possible?



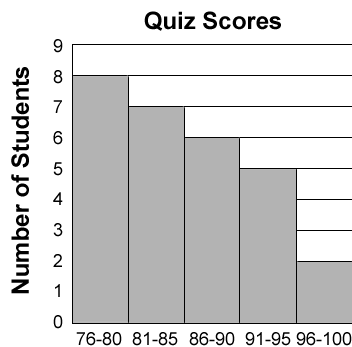
a. 8

b. 15

c. 24

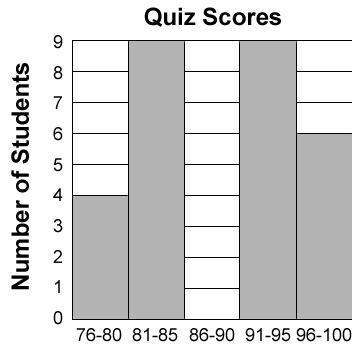
d. 30

44. Five basketball players try to make as many points as possible in each game. They have a mean of 12 points per game. If the first four players score 10, 14, 20, and 8 points each, how many points must the fifth player have made?
- 20 points
  - 8 points
  - 12 points
  - 10 points
45. Daquan has 3 equally sized slips of paper. He writes a word on each one. The words are front, middle, back. He places the slips in a cup. What is the probability the he will pull the word "front" or the word "middle" from the cup?
- $\frac{1}{3}$
  - $\frac{2}{3}$
  - $\frac{1}{2}$
  - 2
46. The set of all possible outcomes in a probability experiment.
- Choices
  - Probability
  - Sample space
  - Outcome arrangements
47. The graph shows student quiz scores, in percentages (%), on a history quiz. How many more students scored in the range of 86% - 90% than scored in the range of 96% to 100%?

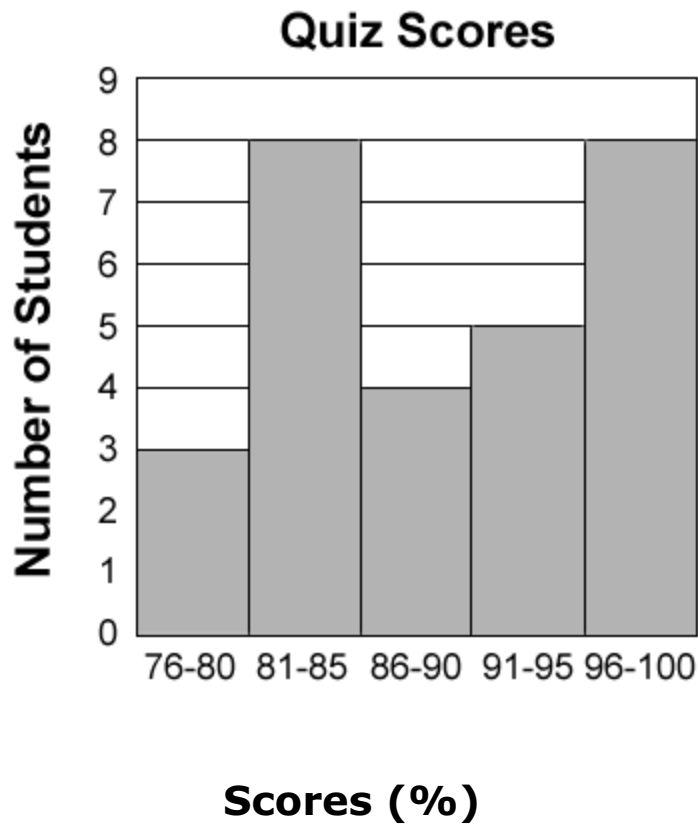


- 2
- 4
- 6
- 8

48. The graph shows student quiz scores, in percentages (%), on a Spanish quiz. Which two score ranges have the same number of students?



- a. 76% - 80% and 81% - 85%
  - b. 81% - 85% and 86% - 90%
  - c. 86% - 90% and 76% - 80%
  - d. 91% - 95% and 81% - 85%
49. Mr. Osgood's students completed a quiz in math class. The histogram shows the students' scores for the class.



- A. More students scored between 86% - 90% than scored between 91% to 95%.
- a. True
  - b. False

- B. More students scored between 86% - 90% than scored between 76% - 80%.
- True
  - False
- C. How many students completed the math quiz in all?
- 20
  - 28
  - 76
  - 100
- D. How many students scored between 86% - 90% on the quiz?
- 3
  - 4
  - 5
  - 8
- E. How many students scored between 96% - 100% on the quiz?
- 3
  - 4
  - 5
  - 8
- F. Which range of math quiz scores has the least students?
- 76% - 80%
  - 81% - 85%
  - 86% - 90%
  - 91% - 95%
  - 96% - 100%
- G. Which range of scores had the same number of students as the number of students who scored between 96% - 100%?
- 76% - 80%
  - 81% - 85%
  - 86% - 90%
  - 91% - 95%
- H. Irina scored 92% on the math quiz. How many other students scored in the same range as Irina?
- 3
  - 4
  - 5
  - 6
- I. How many more students scored between 81% - 85% than scored between 76% - 80%?
- 3
  - 5
  - 8
  - 11

J. How many students scored 86% or higher on the quiz?

- a. 4
- b. 13
- c. 17
- d. 25