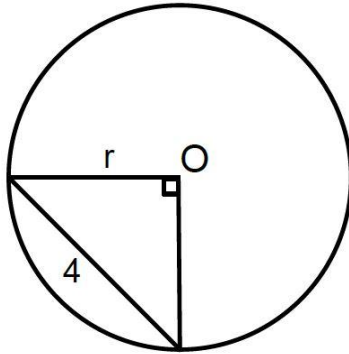


GRE QUANT PRACTICE PAPER

"O" is the center of the circle as shown below.



1. A

The radius of the circle

B

3

Quantity A is greater

The two quantities are equal

Quantity B is greater

The relationship cannot be determined

A study was conducted to determine the effectiveness of a vaccine for the common cold (Rhinovirus sp.). 1000 patients were studied. Of those, 500 received the vaccine and 500 did not. The patients were then exposed to the Rhinovirus and the results were tabulated.

Patient Age Group	Vaccinated	Unvaccinated
Under 18	18	63
18-30	4	32
31-50	5	29
51-70	4	51
Over 70	19	75

TABLE 1: Number of patients who caught the Rhinovirus

Table 1 shows the number of vaccinated and unvaccinated patients in each age group who caught the cold.

2. Suppose the scientists wish to create a pie chart reflecting a patient's odds of catching the virus depending on vaccination status and age group.

All 1000 patients are included in this pie chart.

What would be the angle of the arc for the portion of the chart representing vaccinated patients of all age groups who caught the virus?

60°

18°

10°

Insufficient information to answer this question

36°

100 cm = 1 m

3. Quantity A: The area of a square with side 1 m
Quantity B: One hundred times the area of a square with side 1 cm

The two quantities are equal.

Quantity B is greater.

Quantity A is greater.

The relationship cannot be determined from the information given.

4. Quantity A:

The diagonal of a square with a side-length of 7.

Quantity B:

The side-length of a square with a diagonal of 14.

The relationship between the two quantities cannot be determined from the information given.

Quantity B is greater.

Quantity A is greater.

Both quantities are equal.

5. Which set of side lengths CANNOT correspond to a right triangle?

8, 15, 17

6, 8, 11

7, 24, 25

5, 12, 13

3, 4, 5

6. You are asked which triangle is larger. You are only told that they have the same base length and that one contains at least one 3 inch side and the other contains at least one 4 inch side. Determine whether the left or right triangle is larger.

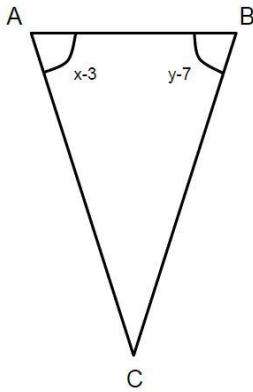


The right triangle is larger

The triangles are equal

The left triangle is larger

It is impossible to determine from the given information.



Triangle ABC is isosceles

x and y are positive integers

7. A

x

B

y

The relationship cannot be determined

Quantity A is greater

The two quantities are equal

Quantity B is greater

8. Daria and Ashley start at the same spot and walk their two dogs to the park, taking different routes. Daria walks 1 mile north and then 1 mile east. Ashley walks her dog on a path going northeast that leads directly to the park. How much further does Daria walk than Ashley?

$\sqrt{2}$ miles

1 mile

$2 - \sqrt{2}$ miles

Cannot be determined

$2 + \sqrt{2}$ miles

9. The area of the base of a circular right cylinder is quadrupled. By what percentage is the outer face increased by this change?

250%

300%

200%

100%

400%

10. What is the volume of a cube with a surface area of 150 in^2 ?

5 in^3

125 in^3

25 in^3

325in3

150in3

11. Sally buys a dress that is a 20% discount from the original price. If she sells it at a 10% markup from her purchase price and profits \$10 from the sale, what was the original price of the dress?

100

125

110

120

20

12. A grade school pays Mr. Day a salary of \$24,585 per school year. Each school year contains 165 days. Suppose Mr. Day is sick for a week (5 work days) and the school doesn't have to pay him for those days. Instead, they must pay a substitute teacher to teach his classes. They pay the substitute \$90 per day. Totally, how much does the school save for the week Mr. Day is sick?

The school must pay \$59 extra for the substitute teacher.

\$205

\$295

The answer cannot be determined from the given information.

\$59

13. A laptop computer costs \$235 to manufacture. If it is sold for \$578, what is the percent of profit made on the item?

145.96%

245.96%

53.38%

59.34%

343%

14. A new t-shirt has a total cost of 8 dollars for a given retailer. Its current price is \$15. If the retailer discounts the cost of the shirt by 20%, how many must it sell in order to make the same amount of profit as when it sold 300 of the shirts at the original price?

360

400

None of the other answers

525

395

15. What percentage of profit is made on a product sold for \$20 if its overall production cost was \$17.50?

87.5%

46.67%

15.252%

25%

14.29%

16. A factory has fixed costs of \$25,000 per month. It manufactures widgets at a total

manufacturing cost of \$45 per widget. They are sold at \$60. How many widgets must be sold in any given month in order to break even?

555

556

1667

1666

1753

17. Manufacturer X has a base monthly operating cost of \$30,000. It makes only one product, which costs \$5 per piece in addition to the base operational costs for the plant. These products are each sold for \$15 apiece. How many products must the company sell in order to break even in any given month?

1,500

3,000

2,500

10,000

2,000

18. A shirt costs \$12 to manufacture. If the marketing and sales costs are a 75% addition to this manufacturing cost. What is the minimum price necessary for making a 50% profit?

\$18

\$31.5

\$21

\$16.5

\$10.5

19. Mary buys a car from a mean salesman who charges her 12% over the original price of a \$15,000 car. Luke buys the same car from a much nicer salesman who gives him an 8% discount off of the original price. How much more does Mary spend on the car than Luke does?

\$2500

\$1200

\$2000

\$3000

20 To promote a new ice cream flavor, an ice cream parlor is selling their \$1.29 cones at 70% of the original price. Approximately how much will be saved by buying 4 of their cones?

\$3.16

\$3.20

\$1.56

\$1.29

\$.90

21. Jenny is at a store and would like to buy a shirt. The shirt is labelled 20% off, and the store is having a store-wide sale where everything is 15% off. What percent of the original price does Jenny have to pay?

75%

.75%

68%

.68%

65%

22. A retail chain wishes to make at least a 27% profit on a new item. If it can only sell its items for integer values, what is the lowest price it can sell the item for if it costs the chain \$23 to purchase it?

33

29

32

None of the answers are correct.

30

23 A department store sells a set of hand weights for \$X. If the store offers a 20% discount on the original price of the weights, and then an additional 10% employee discount, what will be the price of the weights if an employee purchases them?

0.7X

0.88X

0.8X

0.64X

0.72X

A car dealer sold two trucks for \$40,000 each, resulting in a 25% profit on one truck and a 20% loss on the other.

24. Quantity A: The dealer's net gain

Quantity B: The dealer's net loss

The relationship cannot be determined from the information given.

The two quantities are equal.

Quantity B is greater.

Quantity A is greater.

25. A dress originally costs \$50 but is on sale for 25% off. In addition, you have a 10% off coupon. How much will the dress cost after these discounts?

\$42.15

\$35.25

\$33.75

\$32.50

26. Betty buys a sweater for \$36. The next week, Alice buys the same sweater on sale for 25% off. The week after that, Chelsea buys the same sweater that is now 15% off the sale price. How much did Chelsea spend on the sweater?

\$30

\$22.95

\$30.60

\$27

\$21.60

27. The price of a laptop is reduced by 20%. During a markdown sale, the price is reduced by another 10%. What is the total percentage discount?

30%

20%

Cannot be determined

28%

35%

28. A store puts a \$200 dress on a 70% discount and then takes an additional 15% off the reduced price. How much of the original price was removed?

\$170

\$149

\$51

\$161

\$30

29. How much does a sweater cost that is 18% more than a \$50 dress?

59

55

68

54

64

30. A shirt is originally \$20 and marked down 30%. After this it is marked up by 40% then marked down again by 10%. What is its final price?

\$7.56

None of the other answers

\$20

\$18.50

\$17.64