

TCS Aptitude Questions: TCS NQT Previous Year Questions

Question 1: In a class, the average height of boys is 165 cm, and the average height of girls is 155 cm. If the average height of the whole class is 160 cm, what is the ratio of boys to girls in the class?

Let the number of boys be B and the number of girls be G. The total height = $B * 165 + G * 155$.
Given total height = $(B + G) * 160$. Solve for B/G, the ratio is 3:2.

Question 2: If $x + y = 10$ and $3x - 2y = 4$, find the value of x.

Solve the second equation for x: $x = (4 + 2y) / 3$. Substitute x in the first equation: $(4 + 2y) / 3 + y = 10$. Solving for y, we get $y = 3$. Substituting y in x, we get $x = 4$.

Question 3: The difference between a number and its two-fifths is 400. Find the number.

Let the number be N. We have $N - 2/5 * N = 400$. Solving for N, we get $N = 1000$.

Question 4: A train travels a distance of 360 km in 5 hours. What is its speed?

Speed = Distance / Time. Speed = $360 \text{ km} / 5 \text{ hours} = 72 \text{ km/h}$.

Question 5: If 20% of a number is 50, what is 40% of the same number?

Let the number be N. We have $0.20N = 50$. Solving for N, we get $N = 250$. Therefore, 40% of N is $0.40 * 250 = 100$.

Question 6: A shopkeeper sold an article for \$450, incurring a loss of 10%. What was the cost price of the article?

Let the cost price be C. Selling price = Cost price - Loss. We have $450 = C - 0.10C$. Solving for C, we get $C = 500$.

Question 7: Simplify: $\sqrt{(64 - 9)} + \sqrt{(25 + 16)}$.

$\sqrt{(64 - 9)} + \sqrt{(25 + 16)} = \sqrt{55} + \sqrt{41}$.

Question 8: If $2x - 3 = 7$, what is the value of x?

Add 3 to both sides: $2x = 10$. Divide by 2: $x = 5$.

Question 9: If the base of a rectangle is 12 cm and its height is 8 cm, what is its area?

Area of rectangle = length \times width = $12 \text{ cm} \times 8 \text{ cm} = 96 \text{ cm}^2$.

Question 10: Find the value of $2^3 * 3^2$.

$2^3 * 3^2 = 8 * 9 = 72$.

Question 11: A car travels a distance of 540 km in 6 hours. What is its speed in m/s?

Answer: Speed = Distance / Time. Speed = $540 \text{ km} / 6 \text{ hours} = 90 \text{ km/h}$. Convert to m/s: $90 \text{ km/h} \times (1000 \text{ m} / 1 \text{ km}) \times (1 \text{ h} / 3600 \text{ s}) = 25 \text{ m/s}$.

Question 12: If 25% of a number is 75, what is 50% of the same number?

Answer: Let the number be N. We have $0.25N = 75$. Solving for N, we get $N = 300$. Therefore, 50% of N is $0.50 * 300 = 150$.

Question 13: If a shirt is sold for \$30 with a 15% profit, what was its cost price?

Answer: Let the cost price be C. Selling price = Cost price + Profit. We have $30 = C + 0.15C$. Solving for C, we get $C = 26.09$.

Question 14: Solve: $5x + 8 = 23$.

Answer: Subtract 8 from both sides: $5x = 15$. Divide by 5: $x = 3$.

Question 15: The area of a square is 121 square units. What is the length of its side?

Answer: Side length of square = $\sqrt{\text{Area}} = \sqrt{121} = 11 \text{ units}$.

Question 16: If 60% of a number is 120, what is 80% of the same number?

Answer: Let the number be N . We have $0.60N = 120$. Solving for N , we get $N = 200$. Therefore, 80% of N is $0.80 * 200 = 160$.

Question 17: A circle has a diameter of 14 cm. What is its circumference?

Answer: Circumference = $\pi * \text{diameter} = \pi * 14 \text{ cm} = 43.96 \text{ cm}$.

Question 18: Simplify: $(2/5) * (5/8)$.

Answer: $(2/5) * (5/8) = 1/4$.

Question 19: If $x - 3y = 7$ and $4x + y = 19$, find the value of x .

Answer: Solve the first equation for x : $x = 3y + 7$. Substitute x in the second equation: $4(3y + 7) + y = 19$. Solving for y , we get $y = 1$. Substituting y in x , we get $x = 10$.

Question 20: If the difference between a number and its three-seventh is 200, find the number.

Answer: Let the number be N . We have $N - 3/7 * N = 200$. Solving for N , we get $N = 350$.

