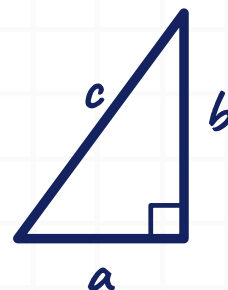
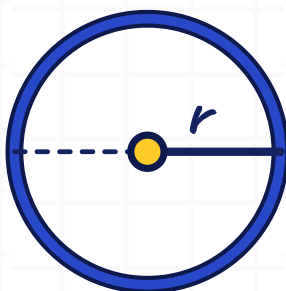


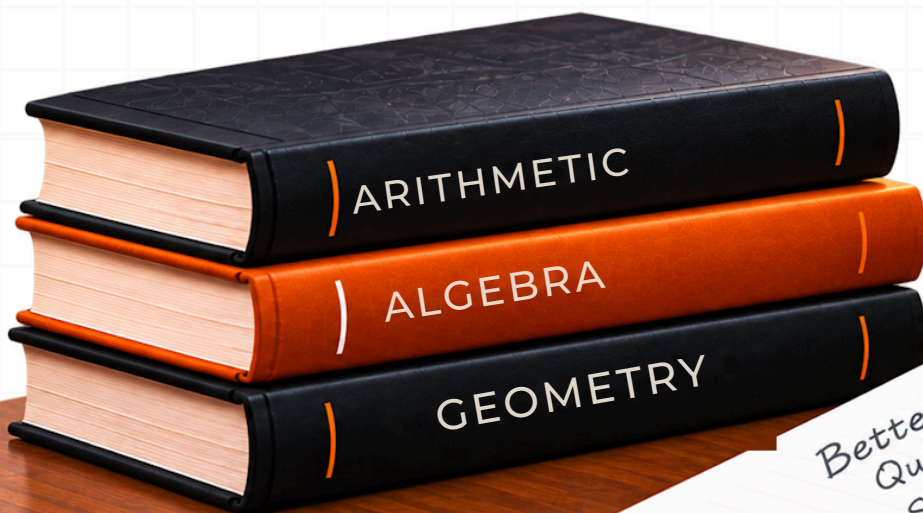
CAT PYQ

Percentages

$$a^2 + b^2 = c^2$$



$$D = S \times T$$



Better
Questions
Stronger
Concepts
Brighter Future

36 Questions

Quantitative Aptitude

Years: 1990-2024

General Instructions

- (i) This collection contains **36 Quantitative Aptitude questions** classified under **Percentages**, following the supplied CD PYQ sheet.
- (ii) **Coverage:** CAT 1990-2024. Questions are grouped by their source year and sitting, with continuous numbering from **1 to 36**.
- (iii) This collection has **30 multiple choice questions (MCQs)** and **6 Type In The Answer (TITA) questions**. Read every option before choosing the answer. Enter a response for questions marked "Type in the answer."
- (iv) All required shared passages and data sets for the selected questions are included. Blue range labels refer to the question numbers **in this collection**. Read the full passage, chart, table or conditions before answering.
- (v) Each question carries its original year or exam date, sitting where available, and source question number. References distinguish the two CAT 2003 sittings.
- (vi) Use this collection for practice. Follow the timing and marking scheme of the original sitting when attempting a timed exercise.
- (vii) Answer keys and solutions are not included. Passages and questions may continue onto the following page.

CAT 2024 Slot 1 - Questions 1-1

1. In September, the incomes of Kamal, Amal and Vimal are in the ratio 8 : 6 : 5. They rent a house together, and Kamal pays 15%, Amal pays 12% and Vimal pays 18% of their respective incomes to cover the total house rent in that month. In October, the house rent remains unchanged while their incomes increase by 10%, 12% and 15%, respectively. In October, the percentage of their total income that will be paid as house rent, is nearest to

24 Nov 2024, Slot 1, Q55

(A) 15.18

(B) 13.26

(C) 14.84

(D) 12.75

CAT 2024 Slot 3 - Questions 2-2

2. After two successive increments, Gopal's salary became 187.5% of his initial salary. If the percentage of salary increase in the second increment was twice of that in the first increment, then the percentage of salary increase in the first increment was

24 Nov 2024, Slot 3, Q68

- | | |
|--------|----------|
| (A) 30 | (B) 27.5 |
| (C) 25 | (D) 20 |
-

CAT 2023 Slot 1 - Questions 3-3

3. The salaries of three friends Sita, Gita and Mita are initially in the ratio 5 : 6 : 7, respectively. In the first year, they get salary hikes of 20%, 25% and 20%, respectively. In the second year, Sita and Mita get salary hikes of 40% and 25%, respectively, and the salary of Gita becomes equal to the mean salary of the three friends. The salary hike of Gita in the second year is

26 Nov 2023, Slot 1, Q57

- | | |
|---------|---------|
| (A) 25% | (B) 28% |
| (C) 26% | (D) 30% |
-

CAT 2023 Slot 3 - Questions 4-5

4. The population of a town in 2020 was 100000. The population decreased by $y\%$ from the year 2020 to 2021, and increased by $x\%$ from the year 2021 to 2022, where x and y are two natural numbers. If population in 2022 was greater than the population in 2020 and the difference between x and y is 10, then the lowest possible population of the town in 2021 was

26 Nov 2023, Slot 3, Q54

- (A) 72000 (B) 74000
(C) 73000 (D) 75000

5. A fruit seller has a stock of mangoes, bananas and apples with at least one fruit of each type. At the beginning of a day, the number of mangoes make up 40% of his stock. That day, he sells half of the mangoes, 96 bananas and 40% of the apples. At the end of the day, he ends up selling 50% of the fruits. The smallest possible total number of fruits in the stock at the beginning of the day is

26 Nov 2023, Slot 3, Q59

Type in the answer.

CAT 2022 Slot 2 - Questions 6-6

6. In an election, there were four candidates and 80% of the registered voters casted their votes. One of the candidates received 30% of the casted votes while the other three candidates received the remaining casted votes in the proportion 1 : 2 : 3. If the winner of the election received 2512 votes more than the candidate with the second highest votes, then the number of registered voters was

27 Nov 2022, Slot 2, Q56

(A) 50240

(B) 40192

(C) 60288

(D) 62800

7. Identical chocolate pieces are sold in boxes of two sizes, small and large. The large box is sold for twice the price of the small box. If the selling price per gram of chocolate in the large box is 12% less than that in the small box, then the percentage by which the weight of chocolate in the large box exceeds that in the small box is nearest to

28 Nov 2021, Slot 1, Q64

- | | |
|---------|---------|
| (A) 144 | (B) 127 |
| (C) 135 | (D) 124 |
-

CAT 2021 Slot 2 - Questions 8-9

8. Raj invested ₹ 10000 in a fund. At the end of first year, he incurred a loss but his balance was more than ₹ 5000. This balance, when invested for another year, grew and the percentage of growth in the second year was five times the percentage of loss in the first year. If the gain of Raj from the initial investment over the two year period is 35%, then the percentage of loss in the first year is

28 Nov 2021, Slot 2, Q48

- (A) 5 (B) 15
(C) 17 (D) 10
-

9. A box has 450 balls, each either white or black, there being as many metallic white balls as metallic black balls. If 40% of the white balls and 50% of the black balls are metallic, then the number of non-metallic balls in the box is

28 Nov 2021, Slot 2, Q60

Type in the answer.

CAT 2021 Slot 3 - Questions 10-11

10. In a tournament, a team has played 40 matches so far and won 30% of them. If they win 60% of the remaining matches, their overall win percentage will be 50%. Suppose they win 90% of the remaining matches, then the total number of matches won by the team in the tournament will be

28 Nov 2021, Slot 3, Q47

- | | |
|--------|--------|
| (A) 80 | (B) 78 |
| (C) 84 | (D) 86 |
-

11. The total of male and female populations in a city increased by 25% from 1970 to 1980. During the same period, the male population increased by 40% while the female population increased by 20%. From 1980 to 1990, the female population increased by 25%. In 1990, if the female population is twice the male population, then the percentage increase in the total of male and female populations in the city from 1970 to 1990 is

28 Nov 2021, Slot 3, Q50

- | | |
|-----------|-----------|
| (A) 68.25 | (B) 68.75 |
| (C) 68.50 | (D) 69.25 |
-

12. In a group of people, 28% of the members are young while the rest are old. If 65% of the members are literates, and 25% of the literates are young, then the percentage of old people among the illiterates is nearest to

29 Nov 2020, Slot 1, Q73

- (A) 62
(C) 59

- (B) 55
(D) 66
-

CAT 2020 Slot 2 - Questions 13-13

13. In May, John bought the same amount of rice and the same amount of wheat as he had bought in April, but spent ₹ 150 more due to price increase of rice and wheat by 20% and 12%, respectively. If John had spent ₹ 450 on rice in April, then how much did he spend on wheat in May?

29 Nov 2020, Slot 2, Q71

(A) Rs.560

(B) Rs.570

(C) Rs.590

(D) Rs.580

CAT 2020 Slot 3 - Questions 14-14

14. In the final examination, Bishnu scored 52% and Asha scored 64%. The marks obtained by Bishnu is 23 less, and that by Asha is 34 more than the marks obtained by Ramesh. The marks obtained by Geeta, who scored 84%, is

29 Nov 2020, Slot 3, Q61

(A) 357

(B) 417

(C) 439

(D) 399

CAT 2019 Slot 1 - Questions 15-17

15. The income of Amala is 20% more than that of Bimala and 20% less than that of Kamala. If Kamala's income goes down by 4% and Bimala's goes up by 10%, then the percentage by which Kamala's income would exceed Bimala's is nearest to

24 Nov 2019, Slot 1, Q71

- (A) 31 (B) 29
(C) 28 (D) 32

16. Meena scores 40% in an examination and after review, even though her score is increased by 50%, she fails by 35 marks. If her post-review score is increased by 20%, she will have 7 marks more than the passing score. The percentage score needed for passing the examination is

24 Nov 2019, Slot 1, Q81

- (A) 60 (B) 80
(C) 70 (D) 75

17. In a class, 60% of the students are girls and the rest are boys. There are 30 more girls than boys. If 68% of the students, including 30 boys, pass an examination, the percentage of the girls who do not pass is

24 Nov 2019, Slot 1, Q87

Type in the answer.

CAT 2019 Slot 2 - Questions 18-18

18. In an examination, the score of A was 10% less than that of B, the score of B was 25% more than that of C, and the score of C was 20% less than that of D. If A scored 72, then the score of D was

24 Nov 2019, Slot 2, Q95

Type in the answer.

CAT 2018 Slot 1 - Questions 19-19

19. In an examination, the maximum possible score is N while the pass mark is 45% of N . A candidate obtains 36 marks, but falls short of the pass mark by 68%. Which one of the following is then correct?

25 Nov 2018, Slot 1, Q100

- (A) $N \leq 200$.
(B) $243 \leq N \leq 252$.
(C) $201 \leq N \leq 242$.
(D) $N \geq 253$.
-

CAT 2017 Slot 1 - Questions 20-22

20. Arun's present age in years is 40% of Barun's. In another few years, Arun's age will be half of Barun's. By what percentage will Barun's age increase during this period?

26 Nov 2017, Slot 1, Q67

Type in the answer.

21. Ravi invests 50% of his monthly savings in fixed deposits. Thirty percent of the rest of his savings is invested in stocks and the rest goes into Ravi's savings bank account. If the total amount deposited by him in the bank (for savings account and fixed deposits) is Rs 59500, then Ravi's total monthly savings (in Rs) is

26 Nov 2017, Slot 1, Q71

Type in the answer.

22. The number of girls appearing for an admission test is twice the number of boys. If 30% of the girls and 45% of the boys get admission, the percentage of candidates who do not get admission is

26 Nov 2017, Slot 1, Q75

(A) 35

(B) 50

(C) 60

(D) 65

CAT 2017 Slot 2 - Questions 23-24

23. Out of the shirts produced in a factory, 15% are defective, while 20% of the rest are sold in the domestic market. If the remaining 8840 shirts are left for export, then the number of shirts produced in the factory is

26 Nov 2017, Slot 2, Q71

- | | |
|-----------|-----------|
| (A) 13600 | (B) 13000 |
| (C) 13400 | (D) 14000 |
-

24. In a village, the production of food grains increased by 40% and the per capita production of food grains increased by 27% during a certain period. The percentage by which the population of the village increased during the same period is nearest to

26 Nov 2017, Slot 2, Q76

- | | |
|--------|--------|
| (A) 16 | (B) 13 |
| (C) 10 | (D) 7 |
-

CAT 2003 Original sitting (23 Nov 2003) - Questions 25-25

25. At the end of year 1998, Shepard bought nine dozen goats. Henceforth, every year he added $p\%$ of the goats at the beginning of the year and sold $q\%$ of the goats at the end of the year where $p > 0$ and $q > 0$. If Shepard had nine dozen goats at the end of year 2002, after making the sales for that year, which of the following is true?

23 Nov 2003, CAT 2003 Original sitting, Q126

(A) $p = q$

(B) $p < q$

(C) $p > q$

(D) $p = q/2$

CAT 2001 - Questions 26-26

26. The owner of an art shop conducts his business in the following manner: every once in a while he raises his prices by $X\%$, then a while later he reduces all the new prices by $X\%$. After one such updown cycle, the price of a painting decreased by Rs. 441. After a second up-down cycle the painting was sold for Rs. 1,944.81. What was the original price of the painting?

CAT 2001, Q35

- (A) Rs. 2,756.25 (B) Rs. 2,256.25
(C) Rs. 2,500 (D) Rs. 2,000
-

CAT 1999 - Questions 27-27

27. Forty percent of the employees of a certain company are men, and 75 percent of the men earn more than Rs. 25,000 per year. If 45 percent of the company's employees earn more than Rs. 25,000 per year, what fraction of the women employed by the company earn Rs. 25,000 year or less'?

CAT 1999, Q63

(A) $\frac{2}{11}$

(B) $\frac{1}{4}$

(C) $\frac{1}{3}$

(D) $\frac{3}{4}$

Questions 28 to 29

Answer the following questions based on the following information.

A company purchases components A and B from Germany and USA respectively. A and B form 30% and 50% of the total production cost. Current gain is 20%. Due to change in the international scenario, cost of the German mark increased by 30% and that of USA dollar increased by 22%. Due to market conditions, the selling price cannot be increased by more than 10%.

28. What is the maximum current gain possible?

CAT 1998, Q85

- | | |
|---------|-----------|
| (A) 10% | (B) 12.5% |
| (C) 0% | (D) 7.5% |

29. If the USA dollar becomes cheap by 12% over its original cost and the cost of German mark increased by 20%, what will be the gain? (The selling price is not altered.)

CAT 1998, Q86

- | | |
|---------|----------|
| (A) 10% | (B) 20% |
| (C) 15% | (D) 7.5% |

CAT 1997 - Questions 30-30

30. A student gets an aggregate of 60% marks in five subjects in the ratio 10 : 9 : 8 : 7 : 6. If the passing marks are 50% of the maximum marks and each subject has the same maximum marks, in how many subjects did he pass the examination?

CAT 1997, Q107

(A) 2

(B) 3

(C) 4

(D) 5

Questions 31 to 32

Answer the questions based on the following information. A salesman enters the quantity sold and the price into the computer. Both the numbers are two-digit numbers. But, by mistake, both the numbers were entered with their digits interchanged. Although, the total sales value remained the same, i.e. Rs. 1,148, the total inventory sold got reduced by 54.

31. What is the actual price per piece?

CAT 1996, Q124

- | | |
|------------|------------|
| (A) Rs. 82 | (B) Rs. 41 |
| (C) Rs. 14 | (D) Rs. 28 |

32. What is the actual quantity sold?

CAT 1996, Q125

- | | |
|--------|--------|
| (A) 28 | (B) 21 |
| (C) 82 | (D) 14 |

33. The price of a Maruti car rises by 30% while the sales of the car come down by 20%. What is the percentage change in the total revenue?

CAT 1996, Q136

- | | |
|---------|---------|
| (A) -4% | (B) -2% |
| (C) +4% | (D) +2% |

34. Choose the best alternative.

The number of votes not cast for the Praja Party increased by 25% in the National General Election over those not cast for it in the previous Assembly Polls, and the Praja Party lost by a majority twice as large as that by which it had won the Assembly Polls. If a total 2,60,000 people voted each time. How many voted for the Praja Party in the Assembly Elections.

CAT 1994, Q51

(A) 1,10,000

(B) 1,50,000

(C) 1,40,000

(D) 1,20,000

CAT 1993 - Questions 35-35

35. A report consists of 20 sheets each of 55 lines and each such line consist of 65 characters. This report is retyped into sheets each of 65 lines such that each line consists of 70 characters. The percentage reduction in number of sheets is closest to

CAT 1993, Q89

(A) 20

(B) 5

(C) 30

(D) 35

CAT 1990 - Questions 36-36

36. In a stockpile of products produced by three machines M1, M2 and M3, 40% and 30% were manufactured by M1 and M2 respectively. 3% of the products of M1 are defective, 1% of products of M2 defective, while 95% of the products of M3 are not defective. What is the percentage of defective in the stockpile?

CAT 1990, Q19

- (A) 3% (B) 5%
(C) 2.5% (D) 4%

- End of PYQ Collection -
