

1. Two times a two-digit number is 9 times the number obtained by reversing the digits and sum of the digits is 9. The number is (MAT Feb – 2010)  
 (a) 72 (b) 54 (c) 63 (d) 81
2. The students present in an auditorium are asked to stand in rows. If there were 4 students extra in a row there would be 4 less rows. However, if 2 students were less in a row, there would be 4 more rows. The number of students present in the auditorium is (MAT Feb – 2010)  
 (a) 80 (b) 96 (c) 100 (d) 128
3. One fourth of Nikhil's money is equal to one-sixth of Yogesh's money. If both together have ₹ 600, what is the difference between their amounts? (MAT Feb – 2010)  
 (a) ₹ 160 (b) ₹ 240 (c) ₹ 200 (d) ₹ 120  
 (a) ₹ 12,500 (b) ₹ 6,250 (c) ₹ 10,000 (d) ₹ 18,750
4. A person spends 40% of his salary on his educational expenses. He spends 60% of it in purchasing books and one half of the remaining in purchasing stationery items. If he saves ₹ 160 every month, which is one-fourth of the balance after spending over books and stationery items, what is his monthly salary? (MAT Feb – 2010)  
 (a) ₹ 8,000 (b) ₹ 4,800 (c) ₹ 9,600 (d) Data inadequate
5. The average sale of a car dealership was 15 cars per week. After a promotional scheme the average sale increased to 21 cars per week. The percentage increase in the sale of cars was (MAT Feb – 2010)  
 (a) 40% (b) 140% (c) 42% (d) 39.33%
6. A person on tour has ₹ 360 for his daily expenses. He decides to extend his tour programme by 4 days which leads to cutting down daily expenses by ₹ 3 a day. The number of days of his tour programme is  
 (a) 15 (b) 20 (c) 18 (d) 16
7. A man ordered 4 pairs of black socks and some pairs of brown socks. The price of a black pair is double that of a brown pair. While preparing the bill, the clerk did a mistake and interchanged the number of black and brown pairs. This increased the bill by 50%. The ratio of the number of black and brown pairs of socks in the original order was (MAT Feb – 2010)  
 (a) 4 : 1 (b) 2 : 1 (c) 1 : 4 (d) 1 : 2
8. I have to reach a certain place at a certain time and I find that I shall be 15 minutes too late, if I walk at 4 km an hour, and 10 minutes too soon, if I walk at 6 km an hour. How far have I to walk? (MAT Feb – 2010)  
 (a) 25 km (b) 5 km (c) 10 km (d) None of these
9. A manufacturer produces two types of products- A and B, which are subjected to two types of operations, viz. grinding and polishing. Each unit of product A takes 2 hours of grinding and 3 hours of polishing whereas product B takes 3 hours of grinding and 2 hours of polishing. The manufacturer has 10 grinders and 15 polishers. Each grinder operates for 12 hours/day and each polisher 10 hours/day. The profit margin per unit of A and B are ₹ 5 and ₹ 7 respectively. If the manufacturer utilises all his resources for producing these two types of items, what is the maximum profit that the manufacturer can earn? (Xat – 2010)  
 (a) ₹ 280 (b) ₹ 294 (c) ₹ 515 (d) ₹ 550  
 (e) None of the above



10. Let  $X$  be a four-digit positive integer such that the unit digit of  $X$  is prime and the product of all digits of  $X$  is also prime. How many such integers are possible? (Xat 2010)

(a) 4 (b) 8 (c) 12 (d) 24  
(e) None of the above

**DIRECTIONS for questions 11 & 12:**

Books and More sells books, music CDs and him DVDs. In December 2009, they earned 40% profit music CDs and 25% profit in books. Music CDs contributed 35% towards their total sales in rupees, the same time total sales in rupees from books is 50% more than that of music CDs. (Xat 2010)

11. If Books and More have earned 20% profit overall, then in film DVDs they made

(a) 15.2% profit (b) 10.0% profit (c) 10.0% loss (d) 16.3% loss  
(e) 23.4% loss

12. If Books and More made 50% loss in film DVDs, then overall they made

(a) 12.3% profit (b) 8.7% profit (c) 0.4% loss (d) 6.25% loss  
(e) 20% loss

13. The sum of two numbers, one of which is one-third of the other is 36. The smaller number is:

(MAT Sept-2009)

(a) 6 (b) 7 (c) 8 (d) 9

14. The retail price of a water Geyser is ₹ 1265. If the manufacturer gains 10%, the wholesale dealer gains 15% and the retailer gains 25%, then the cost of the product is: (MAT Sept-2009)

(a) ₹ 800 (b) ₹ 900 (c) ₹ 700 (d) ₹ 600

15. A man left one-half of his property for his wife, one-third for his son and the reminder for his daughter. If the daughter's share was worth ₹ 45000, how much money did the man leave?

(MAT Sept-2009)

(a) ₹ 245000 (b) ₹ 260000 (c) ₹ 270000 (d) ₹ 275000

16. A machine is sold at a profit of 10%. Had it been sold for ₹ 40 less, there would have been a loss of 10%. What was the cost price of the machine? (MAT Sept-2009)

(a) ₹ 175 (b) ₹ 200 (c) ₹ 225 (d) None of these

17. What percent selling price would be 34% of cost price if gross profit is 26% of the selling price? (MAT Sept-2009)

(a) 17.16% (b) 74% (c) 25.16% (d) 88.40%

18. The tax on a commodity is diminished by 10% and its consumption increased by 10%. The effect on the revenue derived from it is K% change. Find the value of K. (MAT Sept-2009)

(a) 1 (b) 2 (c) -1 (d) -2

19. A student purchased a computer system and a colour printer. If he sold the computer system at 10% loss and the colour printer at 20% gain, he would not loose anything. But if he sells the computer system at 5% gain and the colour printer at 15% loss, he would loose ₹ 800 in the bargain. How much did he pay for the colour printer? (MAT Sept-2009)

(a) ₹ 8000 (b) ₹ 16000 (c) ₹ 9000 (d) ₹ 5334

20. One type of liquid contains 25% of milk, the other type of liquid contains 30% of milk. A can is filled with 6 parts of the first liquid and 4 parts of the second liquid. Find the percentage of milk in the new mixture. (MAT Sept-2009)

(a) 23% (b) 27% (c) 50% (d) 13%

21. A solution of sugar syrup has 15% sugar. Another solution has 5% sugar. How many litres of the second solution must be added to 20 litres of the first solution to make a solution of 10% sugar? (MAT Sept-2009)

(a) 10 litres (b) 5 litres (c) 15 litres (d) 20 litres



22. A salesman's terms were changed from a flat commission of 5% on all his sales to a fixed salary of ₹ 1,000 plus 2.5% commission on all sales exceeding ₹ 4,000. If his remuneration as per the new scheme was ₹ 600 more than by the first scheme, what were his sales worth? (MAT Sept-2009)
- (a) ₹ 11,000 (b) ₹ 17,000 (c) ₹ 16,000 (d) ₹ 12,000
23. If a bucket is 80% full, then it contains 2 litres more water than when it is  $66\frac{2}{3}\%$  full. What is the capacity of the bucket? (MAT Sept-2009)
- (a) 10 litres (b) 15 litres (c)  $16\frac{2}{3}$  litres (d) 20 litres
24. How many kgs of Basmati rice costing ₹40 per kg should a shopkeeper mix with 30 kgs of ordinary rice costing ₹20 per kg so that he makes a profit of 20% on selling the mixture at ₹ 30 per kg? (ATMA 2010)
- (a) 6 (b) 12 (c) 10 (d) 8
25. By selling an article at 60% of its marked price, a merchant makes a loss of 24%. What will be the approximate percent profit made by the merchant if he sells the article at 85% of its marked price? (ATMA 2010)
- (a) 15 (b) 5 (c) 12 (d) 8
26. If the price of petrol increases by 50 percent and Rahul intends to spend only 20 percent more on petrol, by what percent should he reduce the quantity of petrol that he buys? (ATMA 2010)
- (a) 10 (b) 15 (c) 20 (d) 25
27. Wheat is now being sold at ₹ 27 per kg. During last month its cost was ₹ 24 per kg. Find by how much per cent a family reduces its consumption so as to keep the expenditure fixed. (SNAP 2009)
- (a) 10.2% (b) 12.1% (c) 12.3% (d) 11.1%
28. Sonali invest 15% of her monthly salary in insurance policies. She spends 55% of her monthly salary in shopping and on household expenses. She saves the remaining amount of ₹ 12,750. What is Sonali's monthly income? (SNAP 2009)
- (a) ₹ 42,500 (b) ₹ 38,800 (c) ₹ 40,000 (d) ₹ 35,500
29. How many kgs of tea worth ₹ 25 per kg must be blended with 30 kgs of tea worth ₹ 30 per kgs so that by selling the blended variety at ₹ 30 per kgs there should be a gain of 10%? (SNAP 2009)
- (a) 36 kgs (b) 40 kgs (c) 32 kgs (d) 42 kgs
30. In an examination, out of 240 students 85% of the girls and 70% of the boys passed. How many boys appeared in the examination if total pass percentage was 75%? (SNAP 2009)
- (a) 160 (b) 80 (c) 40 (d) none
31. 300 gms of salt solution has 40% salt in it. How much salt should be added to make it 50% in the solution? (SNAP 2009)
- (a) 40 gms (b) 60 gms (c) 70 gms (d) 80 gms
32. An agent sells goods of value of ₹ 15,000. The commission which he receives at the ratio of  $12\frac{1}{2}\%$  is (SNAP 2009)
- (a) ₹ 1875 (b) ₹ 2125 (c) ₹ 2000 (d) ₹ 2700
33.  $\sqrt{110.25} \times \sqrt{0.01} + \sqrt{0.0025} - \sqrt{420.25}$  equals to : (SNAP 2009)
- (a) 0.75 (b) 0.50 (c) 0.64 (d) 0.73



34. Raman scored 456 marks in an exam and Seeta got 54 percent marks in the same exam which is 24 marks less than Raman. If the minimum passing marks in the exam is 34 percent, then how much more marks did Raman score than the minimum passing marks? (ATMA-2012)
- (a) 184 (b) 196 (c) 190 (d) 180
35. In a College the number of students studying Arts, Commerce and Science are in the ratio of 3: 5 : 8 respectively. If the number of students studying Arts, Commerce and Science is increased by 20%, 40% and 25% respectively, what will be the new ratio of students in Arts, Commerce and Science respectively. (ATMA-2012)
- (a) 18:35:50 (b) 3: 10 :10 (c) 4:8:5 (d) 32:35:25
36. The price of three chairs and four tables is ₹ 20,500 and the price of four chairs and three tables is ₹ 18,000. What is the difference between the prices of one table and a chair ? (ATMA-2012)
- (a) ₹ 4,000 (b) ₹ 2,500 (c) ₹ 1,500 (d) Data inadequate
37. If the following fractions are arranged in an ascending order, which fraction will be third in the arrangement ?  $\frac{3}{7}, \frac{9}{13}, \frac{4}{9}, \frac{1}{3}, \frac{7}{11}$  (ATMA-2012)
- (a)  $\frac{3}{7}$  (b)  $\frac{7}{11}$  (c)  $\frac{1}{3}$  (d)  $\frac{4}{9}$
38.  $\left( \sqrt{\frac{225}{729}} - \sqrt{\frac{25}{144}} \right) + \sqrt{\frac{16}{81}}$  (IIFT 2011)
- (a)  $\frac{5}{16}$  (b)  $\frac{7}{12}$  (c)  $\frac{3}{8}$  (d) None of the above
39. While preparing for a management entrance examination, Romit attempted to solve three papers, namely Mathematics, Verbal English and Logical Analysis, each of which have the full marks of 100. It is observed that one-third of the marks obtained by Romit in Logical Analysis is greater than half of his marks obtained in Verbal English by 5. He has obtained a total of 210 marks in the examination and 70 marks in Mathematics. What is the difference between the marks obtained by him in Mathematics and Verbal English? (IIFT 2011)
- (a) 40 (b) 10 (c) 20 (d) 30
40. An old lady engaged a domestic help on the condition that she would pay him ₹ 90 and a gift after service of one year. He served only 9 months and received the gift and ₹ 65. Find the value of the gift. (IIFT 2011)
- (a) ₹ 10 (b) ₹ 12 (c) ₹ 15 (d) None of the above
41. If you have exactly 3 times as many oranges as apples in your fruit-bowl, which of the following CANNOT be the number of oranges and apples in your fruit bowl? [ATMA 2008]
- (a) 68 (b) 72 (c) 54 (d) 44
42. What will be the circumference of a circle with area equal to 98.56 sq.m.? [CET MAH 2008]
- (a) 32.4 m (b) 48.2 m (c) 56.4 m (d) Cannot be determined (e) None of these

43. One junior student is asked to divide half a number by 6 and the other half by 4 and then add the quantities. Instead of doing so, the student divides the given number by 5. If the answer is 4 short of the correct answer, then the actual answer is: [FMS 2007]
- (a) 320 (b) 360 (c) 480 (d) 400
44. There are three wires A, B and C of different metals, one is 25 m 60 cm long, second is 9 m 60 cm long and the last wire is 15 m 36 cm long. Maximum length is equally cut from each wire in such a way that the total length of each wire is exactly divisible by it. How many such largest possible pieces are available in each kind of wires A, B and C respectively? [IBSAT 2008]
- (a) 30 cm, 25 cm, 24 cm (b) 40 cm, 10 cm, 30 cm  
(c) 40 cm, 15 cm, 24 cm (d) 30 cm, 10 cm, 12 cm  
(e) 30 cm, 8 cm, 16 cm
45. The value of the expression  $7777 + 7777 \times 7777 \times (5 + 77) \times (11 + 35)$  is: [IIFT 2007]
- (a) 1234321 (b) 12344321 (c)  $7^{7777}$  (d) None of these
46. A shopkeeper sold an Air-conditioner for ₹ 25,935 with a discount of 9 % and earned a profit of 3.74 %. What would have been the percentage of profit earned if no discount were offered? [IRMA 2007]
- (a) 15.6 % (b) 16 % (c) 12.3 %  
(d) Cannot be determined (e) None of these
47. A large private airline increased the price of their air tickets by 20 percent to compensate for the increase in airport charges. Due to increasing cost of Aviation Turbine Fuel, the airline had to increase further the price of the ticket by 30 percent. By approximately what percentage the ticket prices have gone up as a result of two price hikes by the airline. [JMET 2008]
- (a) 50% (b) 56% (c) 54% (d) 60%
48. If a two-digit integer has its digits reversed, trip resulting integer differs from the original by 27. By how much do the two digits differ? [ATMA 2008]
- (a) 4 (b) 3 (c) 5 (d) 2
49. If  $x$  is the number on the number line between 5 and 15 that is twice as far from 5 as from 15, then  $x$  is. [ATMA 2008]
- (a)  $13\frac{1}{2}$  (b)  $8\frac{1}{3}$  (c)  $11\frac{2}{3}$  (d) 12
50. What is the units digit of  $(13)^4 (17)^2 (29)^3$ ? [ATMA 2008]
- (a) 1 (b) 2 (c) 3 (d) 4