Q1. A gardener has 1000 plants. He wants to plant these in such a way that the number of rows and the number of columns remain same. Find the minimum number of plants he needs more for this. **4 Marks**

Q2. The students of Anju's class sold posters to raise money. Anju wanted to create a ratio for finding the amount of money her class would make for different numbers of posters sold. She knew they could raise Rs. 250 for every 60 posters sold. **4 Marks**

1. How much money would Anju's class make for selling 102 posters?
2. Could Anju's class raise exactly Rs 2,000? If so, how many posters would they need to sell? If not, why?

Q3. Suppose 2kg of sugar contains 9×10^6 crystals. How many sugar crystals are there in (i) 5kg of sugar? (ii) 1.2kg of sugar? **4 Marks**

Q4. By selling a pair of earnings at a discount of 25% on the marked price, a jeweller makes a profit of 16%. If the profit is Rs. 48, what is the cost price? What is the marked price and price at which the pair was eventually bought? **4 Marks**

Q5. Resolve each of the following quadratic trinomial into factor: **4 Marks**
$12x^2 - 17xy + 6y^2$

Q6. A dealer gets Rs. 56 less if instead of selling a chair at a gain of 15%, it is sold at a gain of 8%. Find the cost price of the chair. **4 Marks**

Q7. By selling a bouquet for Rs. 322, a florist gains 15%. At what price should he sell it to gain 25%? **4 Marks**

Q8. A man bought apples at 10 for Rs. 75 and sold them at Rs. 75 per dozen. Find his loss percent. **4 Marks**

Q9. A cycle merchant allows 20% discount on the marked price of the cycles and still makes a profit of 20%. If he gain Rs. 360 over the sale of one cycle, find the marked price of the cycle. **4 Marks**

Q10. The difference between the compound interest and the simple interest on a certain sum for 2 years at 6% per annum is Rs. 90. Find the sum. **4 Marks**

Q11. The marked price of a TV is Rs. 18500. A dealer allows two successive discounts of 20% and 5%. For how much is the TV available? **4 Marks**

Q12. Factories: **4 Marks**
$(a + 7)(a - 10) + 16$

Q13. A cycle dealer offers a discount of 10% and still makes a profit of 26%. What is the actual cost to him of a cycle whose marked price is Rs 840? **4 Marks**

Q14. A, B and C can do a piece of work in 15, 12 and 20 days respectively. They started the work together, but C left after 2 days. In how many days will the remaining work be completed by A and B? **4 Marks**

Q15. A, B and C working together can do a piece of work in 8 hours. A alone can do it in 20 hours and B alone can do it in 24 hours. In how many hours will C alone do the same work? **4 Marks**

Q16. A shopkeeper alllows his custmers 10% off on the marked price of goods and still gets a profit of 25%. What is the actual cost to him of an article marked Rs. 250? **4 Marks**

Q17. A radio is sold for Rs. 3120 at a loss of 4%. What will be the gain or loss percent if it is sold for Rs. 3445? **4 Marks**

Q18. Anil can do a piece of work in 5 days and Ankur in 4 days. How long will they take to do the same work, if they work together? **4 Marks**

Q19. A dealer bought a refrigerator for Rs. 11515. After allowing a discount of 16% on its marked price, he gains 20%. Find the marked price of the refrigerator. **4 Marks**

Q20. Solve: **4 Marks**
$4x^2 - 12x + 5$

Q21. If the selling price of 18 oranges is equal to the cost of 16 oranges, and the loss percent. **4 Marks**

Q22. A lady shopkeeper allows her customers 10% discount on the marked price of the goods and still gets a profit of 25%. What is the cost price of a fan for her marked at Rs 1250? **4 Marks**

Q23. How much percent above the cost price should a shopkeeper mark his goods so that after allowing a discount of 10% on the marked price, he gains 8%? **4 Marks**

Q24. By what number should the following numbers be multiplied to get a perfect square in each case? Also, find the number whose square is the new number. **4 Marks**
3675

Q25. Romesh borrowed a sum of Rs. 245760 at 12.5% per annum, compounded annually. On the same day, he lent out his money to Ramu at the same rate of interest, but compounded semi-annually. Find his gain after 2 years. **5 Marks**

Q26. Find the difference between the compound interest and simpal interest, On a sum of Rs. 50,000 at 10% per annum for 2 years. **5 Marks**

Q27. Rakesh lent out Rs. 10000 for 2 years at 20% per annum, compounded annually. How much more he could earn if the interest be compounded half-yearly? **5 Marks**

Q28. The difference between the compound interest and simple interest on a certain sum at 15% per annum for 3 years is Rs. 283.50. Find the sum. **5 Marks**

Q29. If a and b vary inversely to each other, then find the values of p, q, r ; x, y, z and l, m, n. **6 Marks**

a	6	8	q	50
b	18	p	39	r

a	2	y	6	10
b	x	12.5	15	z

a	l	9	n	6
b	5	m	25	10

Q30. Ravi starts for his school at 8:20a.m. on his bicycle. If he travels at a speed of 10km/h, then he reaches his school late by 8 minutes but on travelling at 16km/h he reaches the school 10 minutes early. At what time does the school start? **6 Marks**