1) Factorise: $x^2 + \frac{1}{x^2} + 2 - 3x - \frac{3}{x}$

2) $(2x^2 - 12x^2 + 16x) \div (x-2)(x-4)$

3) The cost of a chocolate is ₹$(x+y)$ and Rohit bought $(x+y)$ chocolates. Find total amount paid by him in terms of x. If $x=10$ find total amount paid by him.

4) The height of a triangle is (x^4+y^4) and its base is $14xy$. Find area.

5) The sum of $(x+5)$ observations is $x^4 - 625$. Find mean.

6. The area of circle is given by the expression $\pi x^2 + 6\pi x + 9\pi$. Find radius of the circle.

7. The area of rectangle is $x^2+7x+12$ If breadth is $(x+3)$ find length.

8. $(x^3y)/9 - (xy^3)/16$

Find factorisation.

9. $(3pqr - 6p^2q^2r^2) \div 3pq$

10. The area of rectangle is $(x^2+19x-20)$. Find the possible length and breadth.

11. Factorise : $133x^3y - 11y^3x$

12. Factorise :

$2ax^2+4axy+3bx^2+2ay^2+6bxy+3b^2$

13. $15(y+3)(y^2-16) \div 5(y^2-y-12)$

14. Verify $(3x+5y)^2 - 30xy = 9x^2+25y^2$

15. Find and correct the errors in the statements

(i) $(z+5)^2 = z^2+25$

(ii) $\frac{3x}{3x+2} = \frac{1}{2}$ (iii) $(3x+2)^2 = 3x^2+6x+4$

16. Divide the following

(i) $(x^3 + 2x^2 + 3x) \div 2x$

(ii) $9x^2y^2(3z-24) \div 27xy(z-8)$

(iii) $39y^2(50y^2-98) \div 26y^2(5y+7)$