

- Raghu bought an almirah for Rs 6250 and spent Rs 375 on its repairs. Then he sold it for Rs 6890. Find this gain or loss%?
- A reudor bought oranges at 20 for Rs 56 and sold them at Rs 35 per dozen. Find his gain or loss percent?

3. Simplify -

(i) $\left[\left(\frac{3}{2}\right)^2\right]^{-2}$

(ii) $\left[\left(\frac{3}{2}\right)^{-2}\right]^{-2}$

4. Simplify

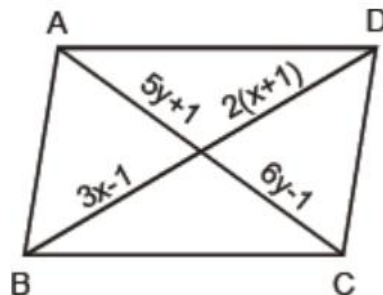
(i) $\left[\left(\frac{2}{3}\right)^2\right]^3 \times \left(\frac{1}{3}\right)^{-4} \times 3^{-1} \times \frac{1}{6}$

5. Evaluate :-

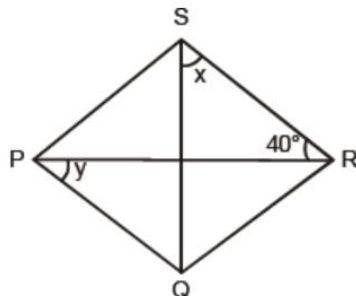
(i) $\left(\frac{2}{3}\right)^4 \div \left(\frac{2}{3}\right)^4$

(ii) $\frac{a^{-3} b^{10} c^8 x b c^8}{(b^{-10} x c^6)^4}$

- Find value of x and y in the following figure which is a parallelogram.



- Q4. Find value of x and y where PQRS is a rhombus.



- Q5. The exterior angle of a regular polygon is one-fifth of its interior angle. How many sides the polygon has?
- 15 workers can build a wall in 48 hr. how many workers will be required to do the same work in 36 hr.

10. A car takes 3 hr to reach a destination by travelling at the speed of 60 km., how long it will take when the car travels at the speed of 90 km/hr.
11. Find the least number of four digits which is a perfect Square. Also find the perfect square and its root.
12. By what least number should 648 be multiplied to get a perfect cube?
13. Find cube roots :- (i) $\sqrt[3]{64 \times \sqrt[3]{729}}$ (ii) $\sqrt[3]{\frac{512}{343}}$ (iii) $\left(1\frac{3}{10}\right)^3$
 (iv) $(0.05)^3$
14. Simplify:-
 (a) $\frac{4}{3} + \frac{3}{5} + \frac{-2}{3} + \frac{-11}{5}$
 (b) $\frac{3}{8} + \frac{7}{2} + \frac{-3}{2} + \frac{9}{8} + \frac{-3}{2} + \frac{6}{5}$
15. What should be added to $\left(\frac{1}{2} + \frac{1}{3} + \frac{1}{5}\right)$ to get 3?
16. Simplify:-
 (a) $\left[\frac{-16}{5} \times \frac{20}{8}\right] - \left[\frac{15}{3} \times \frac{-35}{3}\right]$
 (b) $\left[\frac{-7}{18} \times \frac{15}{-7}\right] - \left[1 \times \frac{1}{4}\right] + \left[\frac{1}{2} \times \frac{1}{4}\right]$
17. How many bricks of size 22 cm X 10 cm X 7 cm are required to construct a wall 11m Long, 3.5m high and 40cm thick, if the cement and sand used in the construction occupy 1/10 part of the wall?
18. A rectangular examination hall having seats for 500 students that has to be built so as to allow 4 cubic metres of air and 0.5m^2 of floor area per candidate. If the length of hall be 25m, find the height and breadth of the hall?
19. The area of a rectangular field is 48m^2 and one of its sides is 6m. How long will a lady take to cross the field diagonally at the rate of 20m/minute?
20. The areas of two circles are in the ratio 49:64. Find the ratio of their circumference?