EduFest Junior

Full Portion Worksheet

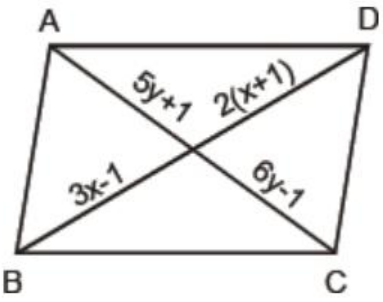
Subject: Mathematics **Standard: 8th**

1. 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%?
2. A rendor bought oranges at 20 for Rs 56 and sold them at Rs 35 per dozen. Find his gain or loss percent?
3. Simplify -

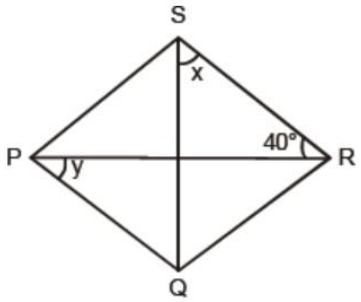
   (i) $\left[\left(\frac{3}{2}\right)^{2}\right]^{-2}$ (ii) $\left[\left(\frac{3}{2}\right)^{-2}\right]^{-2}$
4. Simplify

   (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) $\frac{a^{-3}\, b^{10}\, c^{8} \times bc^{8}}{(b^{-10} \times c^{6})^{4}}$
6. Find value of x and y in the following figure which is a parallelogram.



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



8. Q5. The exterior angle of a regular polygon is one-fifth of its interior angle. How many sides the polygon has?
9. 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) $\sqrt[3]{64}\ X\ \sqrt[3]{729}$ (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 $(\frac{1}{2}+\frac{1}{3}+\frac{1}{5})$ to get 3?

16. Simplify:-

    (a) $\left[\frac{-16}{5}\ X\ \frac{20}{8}\right]$ - $\left[\frac{15}{3}\ X\ \frac{-35}{3}\right]$

    (b) $\left[\frac{-7}{18}\ X\ \frac{15}{-7}\right]$ - $\left[1\ X\ \frac{1}{4}\right]$ + $\left[\frac{1}{2}\ X\ \frac{1}{4}\right]$

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, it 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?