

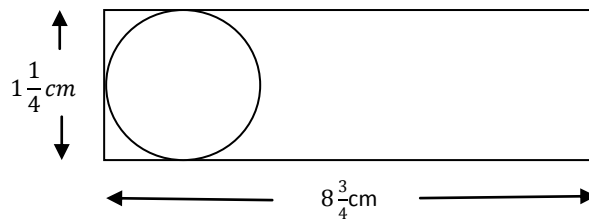


# Delhi Public School Guwahati

“Under the aegis of the Delhi Public School, Delhi”

## CH:01 RATIONAL NUMBERS

- $\frac{1}{6}$  of the students of a class are above average,  $\frac{1}{4}$  are average and rest are below average. If there are 48 students in all, how many students are below average in the class?
- If 16 shirts of equal size can be made out of  $24m$  of cloth, how much cloth is needed for making one shirt?
- Find the product of the additive inverse and multiplicative inverse of  $-\frac{1}{3}$ ?
- Shalini has to cut out circles of diameter  $1\frac{1}{4}cm$  from an aluminium strip of dimensions of  $8\frac{3}{4}cm$  by  $1\frac{1}{4}cm$ . How many full circles can Shalini cut? Also, calculate the wastage of the aluminium strip.



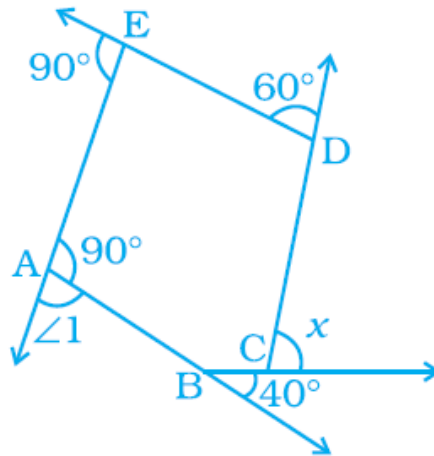
- Using appropriate properties, find  $\frac{2}{3} \times \left(\frac{-5}{7}\right) + \frac{7}{3} + \frac{2}{3} \times \left(\frac{-2}{7}\right)$ , Also mention the properties used.

## CH:02 LINEAR EQUATIONS IN ONE VARIABLE

- The present age of father is four times the age of his son. After 10 years, age of father will become three times the age of his son. Find their ages.
- The denominator of a rational number is greater than the numerator by 10. If the numerator is increased by 1 and the denominator is decreased by 1, the rational number reduces to  $\frac{2}{3}$ . Find the rational number.
- Solve the following:
  - $\frac{y-(4-3y)}{2y-(3+4y)} = \frac{1}{5}$
  - $4t - 3 - (3t + 1) = 5t - 4$
  - $\frac{1}{2}(x + 1) + \frac{1}{3}(x - 1) = \frac{5}{12}(x - 2)$
  - $3x - \frac{x-2}{3} = 4 - \frac{x-1}{4}$
- Find a number whose fifth part increased by 30 is equal to its fourth part decreased by 30.
- Sum of the digits of a two digit number is 11. The given number is less than the number obtained by interchanging the digits by 9. Find the number.

### CH:03 UNDERSTANDING QUADRILATERALS

1. The angles of a quadrilateral ABCD when taken in order are in the ratio 3:7:6:4. Find the angles. Also, name the type of the quadrilateral.
2. The ratio of exterior angle to interior angle of a regular polygon is 1:4. Find the number of sides of the polygon.
3. A polygon is in the form of a kite. The perimeter is 106 metres. If one of its sides is 23metres, what are the lengths of other three sides?
4. Find  $x$  in the given figure:



5. In figure, ABCD and BDCE are parallelograms with common base DC. If  $BC \perp BD$ , then find the measure of  $\angle BEC$

