

Question - Express $-\frac{42}{98}$ as a rational number with denominator 7.

Solution:

$$-\frac{42}{98} = \frac{-42 \div 14}{98 \div 14} = \frac{-3}{7}$$

$\therefore$ Required rational number = $-\frac{3}{7}$

$$\begin{array}{r} 7 \overline{) 98} \quad (14 \\ \underline{7} \\ 28 \\ \underline{28} \\ 0 \end{array}$$

Standard form of a rational number:

A rational number $\frac{a}{b}$ is said to be in standard form if a and b are integers having no common divisor other than 1 and b is positive.

Question Express $\frac{33}{-44}$ in standard form.

Solution: $\frac{33}{-44} = \frac{33 \times (-1)}{44 \times (-1)} = \frac{-33}{44}$

The greater common divisor of 33 and 44 is 11.

$$\therefore \frac{-33}{44} = \frac{-33 \div 11}{44 \div 11} = \frac{-3}{4}$$

Hence, $\frac{+33}{-44} = \frac{-3}{4}$

H.W.

Ques 1 Express $-\frac{3}{5}$ as a rational number with denominator

(i) 20

(ii) -30

(iii) 35

(iv) -40

Ques 2 Express each of the following rational numbers in standard form:

(i) $\frac{-12}{30}$

(ii) $\frac{-14}{49}$

(iii) $\frac{24}{-64}$

(iv) $\frac{-36}{-63}$