Exercise 4A

$$
\begin{array}{r}
161\overline{)299}(1 \\
-161 \\
\hline
138\overline{)161}(1 \\
-138 \\
\hline
23\overline{)138}(6 \\
-138 \\
\hline
\times
\end{array}
$$

H.C.F. of 299 and 161 is 23.

Dividing both the numerator and the denominator by 23:

$\frac{-299 \div 23}{161 \div 23} = \frac{-13}{7}$

Hence, $\frac{299}{-161}$ is equal to $\frac{-13}{7}$ in the standard form.

Q18

Answer :

(i)

$\frac{-9\times4}{5\times4} = \frac{-36}{20}$

$\frac{-9\times(-3)}{5\times(-3)} = \frac{27}{-15}$

$\frac{-9\times5}{5\times5} = \frac{-45}{25}$

$\therefore \frac{-9}{5} = \frac{-36}{20} = \frac{27}{-15} = \frac{-45}{25}$

(ii)

$\frac{-6\times3}{11\times3} = \frac{-18}{33}$

$\frac{-6\times4}{11\times4} = \frac{-24}{44}$

$\therefore \frac{-6}{11} = \frac{-18}{33} = \frac{-24}{44}$

Q19

Answer :

(i) $\frac{-13}{7}, \frac{39}{-21}$

We have:

$(-13)\times(-21) = 273$

And $7\times39=273$

$(-13) \times (-21) = 7 \times 39$

or $\frac{-13}{7} = \frac{39}{-21}$

Hence, $\frac{-13}{7}$ **and** $\frac{39}{21}$ **are equivalent rational numbers.**

(ii) $\frac{3}{-8}, \frac{-6}{16}$

We have:

$3\times16=48$

And $(-8)\times(-6)=48$

$\therefore 3\times16=(-8)\times(-6)$

$\frac{3}{-8} = \frac{-6}{16}$

(iii) $\frac{9}{4}, \frac{-36}{-16}$

We have:

$9\times(-16)=-144$

********** END **********