



Rational Numbers Ex 4.2 Q6

Answer :

Rational number with numerator:

(i) 64 as numerator : $\frac{-192/-3}{108/-3} = \frac{64}{-36}$ (Dividing the numerator and denominator by -3)

(ii) -16 as numerator : $\frac{-192/12}{108/12} = \frac{-16}{9}$ (Dividing the numerator and denominator by 12)

(iii) 32 as numerator : $\frac{-192/-6}{108/-6} = \frac{32}{-18}$ (Dividing the numerator and denominator by -6)

(iv) -48 as numerator : $\frac{-192/4}{108/4} = \frac{-48}{27}$ (Dividing the numerator and denominator by 4)

Rational Numbers Ex 4.2 Q7

Answer :

Rational number with denominator:

(i) 14 as denominator : $\frac{168/-21}{-294/-21} = \frac{-8}{14}$ (Dividing the numerator and denominator by -21)

(ii) -7 as denominator : $\frac{168/42}{-294/42} = \frac{4}{-7}$ (Dividing the numerator and denominator by 42)

(iii) -49 as denominator : $\frac{168/6}{-294/6} = \frac{28}{-49}$
(Dividing the numerator and denominator by 6)

(iv) 1470 as denominator : $\frac{168 \times -5}{-294 \times -5} = \frac{-840}{1470}$
(Multiplying the numerator and denominator by -5)

Rational Numbers Ex 4.2 Q8

Answer :

Rational number with numerator:

(i) -2 is : $\frac{-14/7}{42/7} = \frac{-2}{6}$ (Dividing numerator and denominator by 7)
(ii) 7 is : $\frac{-14/-2}{42/-2} = \frac{7}{-21}$ (Dividing numerator and denominator by -2)
(iii) 42 is : $\frac{-14 \times -3}{42 \times -3} = \frac{42}{-126}$ (Multiplying numerator and denominator by -3)
(iv) -70 is : $\frac{-14 \times 5}{42 \times 5} = \frac{-70}{210}$ (Multiplying numerator and denominator by 5)

Rational Numbers Ex 4.2 Q9

Answer :

Given rational numbers that can be written as a rational number with numerator 6 are:

$\frac{1}{22}$ (On multiplying by 6) = $\frac{6}{132}$

$\frac{2}{3}$ (On multiplying by 3) = $\frac{6}{9}$

$\frac{3}{4}$ (On multiplying by 2) = $\frac{6}{8}$

$\frac{-6}{7}$ (On multiplying by -1) = $\frac{6}{-7}$

Rational Numbers Ex 4.2 Q10

Answer :

Given rational numbers that can be written as a rational number with denominator 4 are:

$$\frac{7}{8} \left(\text{On dividing by } 2 \right) = \frac{3.5}{4}$$

$$\frac{64}{16} \left(\text{On dividing by } 4 \right) = \frac{16}{4}$$

$$\frac{36}{-12} \left(\text{On dividing by } 3 \right) = \frac{12}{-4} = \frac{-12}{4}$$

$$\frac{-16}{17} \text{ can't be expressed with a denominator } 4.$$

$$\frac{5}{-4} \left(\text{On multiplying by } -1 \right) = \frac{-5}{4}$$

$$\frac{140}{28} \left(\text{On dividing by } 7 \right) = \frac{20}{4}$$

Rational Numbers Ex 4.2 Q11

Answer :

Equivalent forms of the rational number having common denominator are:

$$(i) \quad \frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12} \text{ and } \frac{5}{12}.$$

$$(ii) \quad \frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12} \text{ and } \frac{7}{6} = \frac{7 \times 2}{6 \times 2} = \frac{14}{12} \text{ and } \frac{11}{12}$$

Forms are $\frac{8}{12}$, $\frac{14}{12}$ and $\frac{11}{12}$

$$(iii) \quad \frac{5}{7} = \frac{5 \times 24}{7 \times 24} = \frac{120}{168}, \quad \frac{3}{8} = \frac{3 \times 21}{8 \times 21} = \frac{63}{168}, \quad \frac{9}{14} = \frac{9 \times 12}{14 \times 12} = \frac{108}{168} \text{ and } \frac{20}{21} = \frac{20 \times 8}{21 \times 8} = \frac{160}{168}$$

Forms are $\frac{120}{168}$, $\frac{63}{168}$, $\frac{108}{168}$ and $\frac{160}{168}$

***** END *****