Fractions Ex 6.6 Q1

Answer :

(i) $\frac{40}{75}$

Factors of 40 are 1, 2, 4, 5, 8, 10, 20 and 40.

Factors of 75 are 1, 3, 5, 15 and 75.

Common factors of 40 & 75 are 1 & 5.

HCF = 5

Divide both the numerator & denominator by 5.

$\frac{40 \div 5}{75 \div 5} = \frac{8}{15}$

(ii) $\frac{42}{28}$

Factors of 42 are 1, 2, 3, 6, 7, 14, 21, 42

Factors of 28 are 1, 2, 4, 7, 14, 28

Common factors of 42 & 28 are 1, 2, 7, 14

HCF = 14

Divide both the numerator & denominator by 14

$\frac{42 \div 14}{28 \div 14} = \frac{3}{2}$

(iii) $\frac{12}{52}$

Factors of 12 are 1, 2, 3, 4, 6 and 12.

Factors of 52 are 1, 2, 4, 13, 26 and 52.

Common factors of 12 & 52 are 1, 2, and 4.

HCF = 4

Divide both the numerator & denominator by 4.

$\frac{12 \div 4}{52 \div 4} = \frac{3}{13}$

(iv) $\frac{40}{72}$

Factors of 40 are $1, 2, 4, 5, 8, 10, 20, 40$

Factors of 72 are $1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72$

Common factors of 40 & 72 are $1, 2, 4, 8$

HCF = 8

Divide both the numerator & denominator by 8

$\frac{40 \div 8}{72 \div 8} = \frac{5}{9}$

(v) $\frac{80}{24}$

Factors of 80 are 1, 2, 4, 5, 8, 10, 16, 20, 40 and 80.

Factors of 24 are 1, 2, 3, 4, 6, 8, 12 and 24.

Common factors of 80 & 24 are 1, 2, 4 and 8.

HCF = 8

Divide both the numerator & denominator by 4.

$\frac{80 \div 8}{24 \div 8} = \frac{10}{3}$

(vi) $\frac{84}{56}$

Factors of 84 are 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42 and 84.

Factors of 56 are 1, 2, 4, 7, 8, 14, 28 and 56.

Common factors of 84 & 56 are 1, 2, 4, 7, 14 and 28.

HCF = 28

Divide both the numerator & denominator by 28.

$\frac{84 \div 28}{56 \div 25} = \frac{3}{2}$

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