4. Find the equivalent fraction of 3 / 5 having

(a) denominator 20

(b) numerator 9

(c) denominator 30

(d) numerator 27

Solutions:

(a) We require denominator 20

Let M be the numerator of the fractions

∴ M / 20 = 3 / 5

5 × M = 20 × 3

M = (20 × 3) / 5

= 12

Therefore the required fraction is 12 / 20

(b) We require numerator 9

Let N be the denominator of the fractions

∴ 9 / N = 3 / 5

3 × N = 9 × 5

N = (9 × 5) / 3

= 15

Therefore the required fraction is 9 / 15

(c) We require denominator 30

Let D be the numerator of the fraction

∴ D / 30 = 3 / 5

5 × D = 3 × 30

D = (3 × 30) / 5

= 18

Therefore the required fraction is 18 / 30

(d) We require numerator 27

Let N be the denominator of the fraction

∴ 27 / N = 3 / 5

3 × N = 5 × 27

N = (5 × 27) / 3

= 45

Therefore the required fraction is 27 / 45

5. Find the equivalent fraction of 36 / 48 with

(a) numerator 9

(b) denominator 4

Solutions:

(a) Given numerator = 9

∴ 9 / D = 36 / 48

D × 36 = 9 × 48

D = (9 × 48) / 36

D = 12

Hence, the equivalent fraction is 9 / 12

(b) Given, denominator = 4

∴ N / 4 = 36 / 48

N × 48 = 4 × 36

N = (4 × 36) / 48

= 3

Hence, the equivalent fraction is 3 / 4