

Two Methods for Finding Common Denominators



A

$$\frac{3}{8} + \frac{2}{5}$$

$$\frac{3}{8} \times \frac{5}{5} = \frac{15}{40} \quad \frac{2}{5} \times \frac{8}{8} = \frac{16}{40}$$

$$\frac{15}{40} + \frac{16}{40}$$

B

$$\frac{3}{8} + \frac{2}{5}$$

Multiples of 8: x1 8, x2 16, x3 24, x4 32, x5 **40**, x6 48

Multiples of 5: x1 5, x2 10, x3 15, x4 20, x5 25, x6 30, x7 35, x8 **40**, x9 45

The lowest common denominator is
40

$$\frac{3}{8} \times \frac{5}{5} = \frac{15}{40} \quad \frac{2}{5} \times \frac{8}{8} = \frac{16}{40}$$

$$\frac{15}{40} + \frac{16}{40}$$

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C

$$\frac{3}{5} + \frac{7}{10}$$

$$\frac{3 \times 10}{5 \times 10} = \frac{30}{50} \quad \frac{7 \times 5}{10 \times 5} = \frac{35}{50}$$

$$\frac{30}{50} + \frac{35}{50}$$

D

$$\frac{3}{5} + \frac{7}{10}$$

Multiples of 5 x1 x2
5, **10**, 15, 20, 25

Multiples of 10 x1
10, 20, 30, 40, 50

$$\frac{3 \times 2}{5 \times 2} = \frac{6}{10} \quad \frac{7 \times 1}{10 \times 1} = \frac{7}{10}$$

$$\frac{6}{10} + \frac{7}{10}$$

The lowest common denominator is
10

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$$\textcircled{\text{E}} \quad \frac{1}{3} + \frac{7}{11}$$

$$\frac{1 \times 11}{3 \times 11} = \frac{11}{33} \quad \frac{7 \times 3}{11 \times 3} = \frac{21}{33}$$

$$\frac{11}{33} + \frac{21}{33}$$

$$\textcircled{\text{F}} \quad \frac{1}{3} + \frac{7}{11}$$

Multiples of 3: x1 3, x2 6, x3 9, x4 12, x5 15, x6 18, x7 21, x8 24, x9 27, x10 30,

x11 $\textcircled{33}$, 36

Multiples of 11: x1 11, x2 22, x3 $\textcircled{33}$, 44, 55, 66

$$\frac{1 \times 11}{3 \times 11} = \frac{11}{33} \quad \frac{7 \times 3}{11 \times 3} = \frac{21}{33}$$

$$\frac{11}{33} + \frac{21}{33}$$

The lowest common denominator is 33