

ADDITION AND SUBTRACTION OF FRACTIONS

1 Adding and Subtracting Fractions with the Same Denominator

STEP 1:

Let's watching this video



STEP 2:

Looked this explanation

Addition
Fraction

$$\frac{\textcircled{2}}{\textcircled{3}} + \frac{\textcircled{5}}{\textcircled{3}} \rightarrow 2 + 5$$

1. Add the numerators

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

2. Keep the denominator the same

$$\frac{\textcircled{2}}{\textcircled{3}} + \frac{\textcircled{5}}{\textcircled{3}} \rightarrow \frac{2+5}{3} = \frac{7}{3}$$

3. Simplify (Reduce)

Subtraction
Fraction

$$\frac{\textcircled{9}}{\textcircled{7}} - \frac{\textcircled{4}}{\textcircled{7}} \rightarrow 9 - 4$$

1. Subtract the numerators

$$\frac{9}{7} - \frac{4}{7} \rightarrow 7$$

2. Keep the denominator the same

$$\frac{\textcircled{9}}{\textcircled{7}} - \frac{\textcircled{4}}{\textcircled{7}} \rightarrow \frac{9-4}{7} = \frac{5}{7}$$

3. Simplify (Reduce)

All these fraction that have the same denominator.
Use your fraction knowledge to work out the missing fractions.

1

$$\frac{8}{10} + \frac{9}{10} = \frac{17}{10}$$

7

$$\frac{16}{15} - \frac{12}{15} = \frac{4}{15}$$

2

$$\frac{7}{15} + \frac{9}{15} = \frac{16}{15}$$

8

$$\frac{19}{20} - \frac{17}{20} = \frac{2}{20}$$

3

$$\frac{7}{6} + \frac{6}{6} = \frac{13}{6}$$

9

$$\frac{11}{14} - \frac{9}{14} = \frac{2}{14}$$

4

$$\frac{12}{9} + \frac{6}{9} = \frac{18}{9}$$

10

$$\frac{11}{16} - \frac{8}{16} = \frac{3}{16}$$

5

$$\frac{12}{7} + \frac{9}{7} = \frac{21}{7}$$

11

$$\frac{16}{20} - \frac{11}{20} = \frac{5}{20}$$

6

$$\frac{8}{25} + \frac{13}{25} = \frac{21}{25}$$

12

$$\frac{35}{32} - \frac{18}{32} = \frac{17}{32}$$

2

Adding and Subtracting Fractions with the Different Denominators

STEP 1:

Let's watching this video



STEP 2:

Looked this explanation

Addition
Fraction

$$\frac{2}{4} + \frac{5}{3} \rightarrow 12$$

$$\frac{(12 : 4) + 2}{12} + \frac{(12 : 3) + 5}{12}$$

$$\frac{5}{12} + \frac{9}{12} \rightarrow 14$$

$$\frac{5}{12} + \frac{9}{12} \rightarrow 12$$

$$\frac{5}{12} + \frac{9}{12} = \frac{5 + 9}{12} = \frac{14}{12}$$

(1. Find the least common (KPK) denominator)
(2. Add the numerators)
(3. Keep the denominator the same)
(4. Simplify (Reduce))

Subraction
Fraction

$$\frac{5}{8} - \frac{1}{4} \rightarrow 8$$

$$\frac{(8 : 8) - 5}{8} + \frac{(8 : 4) + 1}{8}$$

$$\frac{6}{8} - \frac{3}{8} \rightarrow 3$$

$$\frac{6}{8} - \frac{3}{8} \rightarrow 8$$

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

(1. Find the least common (KPK) denominator)
(2. Subtract the numerators)
(3. Keep the denominator the same)
(4. Simplify (Reduce))

All these fraction that have the Different denominator.
Use your fraction knowledge to work out the missing fractions.

1 $\frac{3}{8} - \frac{1}{6} = \frac{18}{48} - \frac{8}{48} = \frac{10}{48}$

2 $\frac{2}{3} + \frac{5}{7} = \frac{14}{21} + \frac{15}{21} = \frac{29}{21}$

3 $\frac{7}{9} + \frac{3}{10} = \frac{70}{90} + \frac{27}{90} = \frac{97}{90}$

4 $\frac{5}{4} - \frac{3}{8} = \frac{10}{8} - \frac{3}{8} = \frac{7}{8}$

5 $\frac{9}{5} + \frac{2}{7} = \frac{63}{35} + \frac{10}{35} = \frac{73}{35}$

6 $\frac{12}{10} - \frac{3}{4} = \frac{48}{40} - \frac{30}{40} = \frac{18}{40}$

7 $\frac{3}{4} + \frac{5}{3} = \frac{9}{12} + \frac{20}{12} = \frac{29}{12}$

8 $\frac{7}{8} - \frac{2}{5} = \frac{35}{40} - \frac{16}{40} = \frac{19}{40}$

9 $\frac{4}{5} + \frac{3}{4} = \frac{16}{20} + \frac{15}{20} = \frac{31}{20}$

10 $\frac{2}{7} - \frac{1}{4} = \frac{8}{28} - \frac{7}{28} = \frac{1}{28}$

11 $\frac{3}{4} + \frac{3}{10} = \frac{15}{20} + \frac{6}{20} = \frac{21}{20}$

12 $\frac{5}{6} - \frac{3}{5} = \frac{25}{30} - \frac{18}{30} = \frac{7}{30}$