

EXAMPLE

Use the given numbers to fill in the blanks to create a true equation. **All fractions must be less than 1 and in simplest form.**

Numbers: 1, 3, 8, 24

$$\frac{13}{\quad} + \frac{\quad}{\quad} = \frac{2}{\quad}$$

First, we look at $\frac{13}{\quad}$. Since every fraction is less than 1, only 24 can be the denominator of $\frac{13}{\quad}$.

$$\frac{13}{24} + \frac{\quad}{\quad} = \frac{2}{\quad}$$

The remaining numbers are 1, 3, and 8.

Next, we look at $\frac{2}{\quad}$. Every fraction is in simplest form and less than 1. Since $\frac{2}{8}$ can be simplified and $\frac{2}{1}$ is less than 1, only 3 can be the denominator of $\frac{2}{\quad}$.

$$\frac{13}{24} + \frac{\quad}{\quad} = \frac{2}{3}$$

The remaining numbers are 1 and 8. There is only one way to place these into the empty numerator and denominator to make a fraction that is less than 1.

$$\frac{13}{24} + \frac{1}{8} = \frac{2}{3}$$

Finally, we check that the equation is true:

$$\frac{13}{24} + \frac{1}{8} = \frac{13}{24} + \frac{3}{24} = \frac{16}{24} = \frac{2}{3}. \quad \checkmark$$

Be careful,
there are sums
and differences
on these pages!

**PRACTICE**

For each problem below, use the given numbers to fill in the blanks to create a true equation. **All fractions must be less than 1 and in simplest form.**

72. Numbers: 1, 4, 21

$$\frac{\quad}{6} + \frac{\quad}{\quad} = \frac{5}{14}$$

73. Numbers: 1, 2, 11

$$\frac{\quad}{22} + \frac{5}{\quad} = \frac{1}{\quad}$$

74. Numbers: 1, 4, 5

$$\frac{3}{\quad} - \frac{\quad}{15} = \frac{\quad}{3}$$

75. Numbers: 1, 5, 13

$$\frac{\quad}{6} - \frac{\quad}{18} = \frac{\quad}{9}$$

PRACTICE

For each problem below, use the given numbers to fill in the blanks to create a true equation. **All fractions must be less than 1 and in simplest form.**

76. Numbers: 3, 4, 17

$$\frac{\quad}{20} - \frac{\quad}{5} = \frac{1}{\quad}$$

77. Numbers: 2, 3, 7, 8, 24

$$\frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{3}$$

78. Numbers: 1, 2, 5, 9

$$\frac{2}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{10}$$

79. Numbers: 5, 6, 9, 15

$$\frac{\quad}{10} - \frac{1}{\quad} = \frac{\quad}{\quad}$$

80. Numbers: 1, 2, 4, 5

$$\frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{13}{20}$$

81. Numbers: 1, 2, 3, 5

$$\frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{11}{15}$$

82. Numbers: 2, 3, 7, 21

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$$\frac{2}{\quad} - \frac{4}{\quad} = \frac{\quad}{\quad}$$

83. Numbers: 5, 7, 13, 28, 42

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$$\frac{\quad}{\quad} + \frac{\quad}{\quad} = \frac{\quad}{12}$$

PRACTICE

Place a "+" or "-" in each blank square to make true statements.

84. $\frac{3}{5} \square \frac{1}{3} = \frac{4}{15}$

85. $\frac{1}{9} \square \frac{2}{15} = \frac{11}{45}$

86. $\frac{7}{8} \square \frac{1}{2} \square \frac{1}{8} = \frac{1}{2}$

87. $\frac{5}{12} \square \frac{1}{3} \square \frac{1}{2} = \frac{1}{4}$

88. $\frac{1}{2} \square \frac{1}{4} \square \frac{3}{5} = \frac{27}{20}$

89. $\frac{5}{6} \square \frac{1}{4} \square \frac{2}{5} = \frac{59}{60}$

90. $\frac{13}{18} \square \frac{1}{2} \square \frac{1}{9} = \frac{1}{3}$

91. $\frac{11}{20} \square \frac{19}{24} \square \frac{4}{5} = \frac{13}{24}$