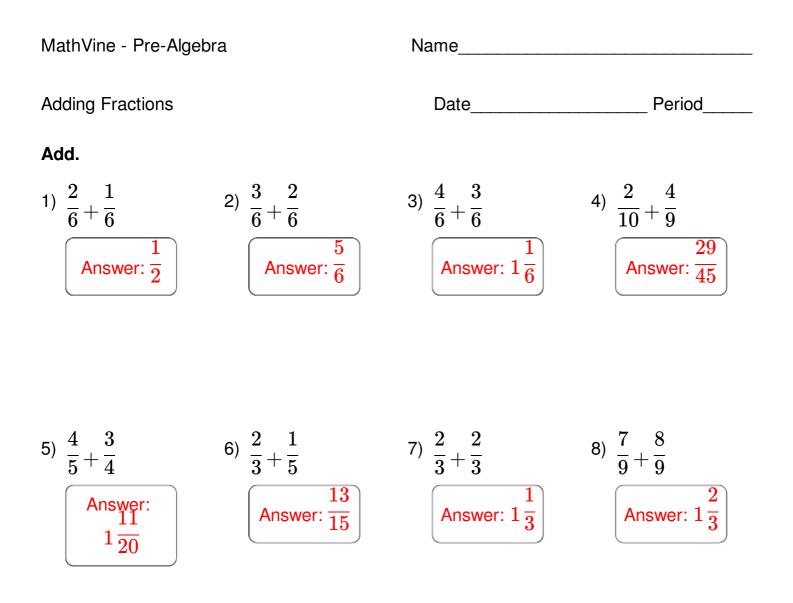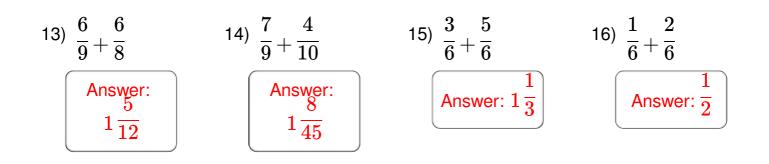MathVine - Pre-Algebra

Adding Fractions

Add.

1) $\dfrac{2}{6} + \dfrac{1}{6}$

2) $\dfrac{3}{6} + \dfrac{2}{6}$

3) $\dfrac{4}{6} + \dfrac{3}{6}$

4) $\dfrac{2}{10} + \dfrac{4}{9}$

5) $\dfrac{4}{5} + \dfrac{3}{4}$

6) $\dfrac{2}{3} + \dfrac{1}{5}$

7) $\dfrac{2}{3} + \dfrac{2}{3}$

8) $\dfrac{7}{9} + \dfrac{8}{9}$

9) $\dfrac{1}{9} + \dfrac{7}{9}$

10) $\dfrac{3}{9} + \dfrac{5}{10}$

11) $\dfrac{5}{9} + \dfrac{1}{4}$

12) $\dfrac{3}{4} + \dfrac{4}{6}$

13) $\dfrac{6}{9} + \dfrac{6}{8}$

14) $\dfrac{7}{9} + \dfrac{4}{10}$

15) $\dfrac{3}{6} + \dfrac{5}{6}$

16) $\dfrac{1}{6} + \dfrac{2}{6}$

Name_____

Adding Fractions

Date_____ Period_____

Add.

1) $\frac{2}{6} + \frac{1}{6}$

Answer: $\frac{1}{2}$

2) $\frac{3}{6} + \frac{2}{6}$

Answer: $\frac{5}{6}$

3) $\frac{4}{6} + \frac{3}{6}$

Answer: $1\frac{1}{6}$

4) $\frac{2}{10} + \frac{4}{9}$

Answer: $\frac{29}{45}$

5) $\frac{4}{5} + \frac{3}{4}$

Answer: $1\frac{11}{20}$

6) $\frac{2}{3} + \frac{1}{5}$

Answer: $\frac{13}{15}$

7) $\frac{2}{3} + \frac{2}{3}$

Answer: $1\frac{1}{3}$

8) $\frac{7}{9} + \frac{8}{9}$

Answer: $1\frac{2}{3}$

9) $\frac{1}{9} + \frac{7}{9}$

Answer: $\frac{8}{9}$

10) $\frac{3}{9} + \frac{5}{10}$

Answer: $\frac{5}{6}$

11) $\frac{5}{9} + \frac{1}{4}$

Answer: $\frac{29}{36}$

12) $\frac{3}{4} + \frac{4}{6}$

Answer: $1\frac{5}{12}$

13) $\dfrac{6}{9} + \dfrac{6}{8}$

Answer: $1\dfrac{5}{12}$

14) $\dfrac{7}{9} + \dfrac{4}{10}$

Answer: $1\dfrac{8}{45}$

15) $\dfrac{3}{6} + \dfrac{5}{6}$

Answer: $1\dfrac{1}{3}$

16) $\dfrac{1}{6} + \dfrac{2}{6}$

Answer: $\dfrac{1}{2}$

MathVine - Pre-Algebra

Name_____

Adding Fractions

Date_____ Period_____

Solution Steps

1) $\frac{2}{6} + \frac{1}{6}$

Since these fractions have the same denominator, we can just add the numerators

$\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$

$\frac{3}{6}$ can be reduced, since 3 is a factor of both 3 and 6:

$\frac{3}{6} \div \frac{3}{3} = \frac{1}{2}$

The fraction is now in lowest terms

2) $\frac{3}{6} + \frac{2}{6}$

Since these fractions have the same denominator, we can just add the numerators

$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$

3) $\frac{4}{6} + \frac{3}{6}$

Since these fractions have the same denominator, we can just add the numerators

$\frac{4}{6} + \frac{3}{6} = \frac{7}{6}$

Because $\frac{7}{6}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number

$\frac{7}{6} = 1\frac{1}{6}$

4) $\frac{2}{10} + \frac{4}{9}$

Since these fractions have different denominators, we need to find the least common multiple of the denominators

The least common multiple of 9 and 10 is 90, so we need to multiply to make each of the denominators = 90

$\frac{2}{10} * \frac{9}{9} = \frac{18}{90}$

$\frac{4}{9} * \frac{10}{10} = \frac{40}{90}$

Since these fractions have the same denominator, we can just add the numerators

$\frac{18}{90} + \frac{40}{90} = \frac{58}{90}$

$\frac{58}{90}$ can be reduced, since 2 is a factor of both 58 and 90:

$\frac{58}{90} \div \frac{2}{2} = \frac{29}{45}$

The fraction is now in lowest terms

5) $\frac{4}{5} + \frac{3}{4}$

Since these fractions have different denominators, we need to find the least common multiple of the denominators
The least common multiple of 4 and 5 is 20, so we need to multiply to make each of the denominators = 20

$$\frac{4}{5} * \frac{4}{4} = \frac{16}{20}$$

$$\frac{3}{4} * \frac{5}{5} = \frac{15}{20}$$

Since these fractions have the same denominator, we can just add the numerators

$$\frac{16}{20} + \frac{15}{20} = \frac{31}{20}$$

Because $\frac{31}{20}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number

$$\frac{31}{20} = 1\frac{11}{20}$$

6) $\frac{2}{3} + \frac{1}{5}$

Since these fractions have different denominators, we need to find the least common multiple of the denominators
The least common multiple of 3 and 5 is 15, so we need to multiply to make each of the denominators = 15

$$\frac{2}{3} * \frac{5}{5} = \frac{10}{15}$$

$$\frac{1}{5} * \frac{3}{3} = \frac{3}{15}$$

Since these fractions have the same denominator, we can just add the numerators

$$\frac{10}{15} + \frac{3}{15} = \frac{13}{15}$$

7) $\frac{2}{3} + \frac{2}{3}$

Since these fractions have the same denominator, we can just add the numerators

$$\frac{2}{3} + \frac{2}{3} = \frac{4}{3}$$

Because $\frac{4}{3}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number

$$\frac{4}{3} = 1\frac{1}{3}$$

8) $\frac{7}{9} + \frac{8}{9}$

Since these fractions have the same denominator, we can just add the numerators

$$\frac{7}{9} + \frac{8}{9} = \frac{15}{9}$$

$\frac{15}{9}$ can be reduced, since 3 is a factor of both 15 and 9:

$$\frac{15}{9} \div \frac{3}{3} = \frac{5}{3}$$

The fraction is now in lowest terms
Because $\frac{5}{3}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number

$$\frac{5}{3} = 1\frac{2}{3}$$

9) $\dfrac{1}{9} + \dfrac{7}{9}$

Since these fractions have the same denominator, we can just add the numerators

$\dfrac{1}{9} + \dfrac{7}{9} = \dfrac{8}{9}$

10) $\dfrac{3}{9} + \dfrac{5}{10}$

Since these fractions have different denominators, we need to find the least common multiple of the denominators
The least common multiple of 9 and 10 is 90, so we need to multiply to make each of the denominators = 90

$\dfrac{3}{9} * \dfrac{10}{10} = \dfrac{30}{90}$
$\dfrac{5}{10} * \dfrac{9}{9} = \dfrac{45}{90}$

Since these fractions have the same denominator, we can just add the numerators

$\dfrac{30}{90} + \dfrac{45}{90} = \dfrac{75}{90}$
$\dfrac{75}{90}$ can be reduced, since 15 is a factor of both 75 and 90:
$\dfrac{75}{90} \div \dfrac{15}{15} = \dfrac{5}{6}$
The fraction is now in lowest terms

11) $\dfrac{5}{9} + \dfrac{1}{4}$

Since these fractions have different denominators, we need to find the least common multiple of the denominators
The least common multiple of 4 and 9 is 36, so we need to multiply to make each of the denominators = 36

$\dfrac{5}{9} * \dfrac{4}{4} = \dfrac{20}{36}$
$\dfrac{1}{4} * \dfrac{9}{9} = \dfrac{9}{36}$

Since these fractions have the same denominator, we can just add the numerators

$\dfrac{20}{36} + \dfrac{9}{36} = \dfrac{29}{36}$

12) $\dfrac{3}{4} + \dfrac{4}{6}$

Since these fractions have different denominators, we need to find the least common multiple of the denominators
The least common multiple of 4 and 6 is 12, so we need to multiply to make each of the denominators = 12

$\dfrac{3}{4} * \dfrac{3}{3} = \dfrac{9}{12}$
$\dfrac{4}{6} * \dfrac{2}{2} = \dfrac{8}{12}$

Since these fractions have the same denominator, we can just add the numerators

$\dfrac{9}{12} + \dfrac{8}{12} = \dfrac{17}{12}$
Because $\dfrac{17}{12}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number
$\dfrac{17}{12} = 1\dfrac{5}{12}$

13) $\dfrac{6}{9} + \dfrac{6}{8}$

Since these fractions have different denominators, we need to find the least common

14) $\dfrac{7}{9} + \dfrac{4}{10}$

Since these fractions have different denominators, we need to find the least common

15) $\dfrac{3}{6} + \dfrac{5}{6}$

Since these fractions have the same denominator, we can just add the numerators
$\dfrac{3}{6} + \dfrac{5}{6} = \dfrac{8}{6}$

16) $\dfrac{1}{6} + \dfrac{2}{6}$

Since these fractions have the same denominator, we can just add the numerators
$\dfrac{1}{6} + \dfrac{2}{6} = \dfrac{3}{6}$

multiple of the denominators

The least common multiple of 8 and 9 is 72, so we need to multiply to make each of the denominators = 72

$$\frac{6}{9} * \frac{8}{8} = \frac{48}{72}$$

$$\frac{6}{8} * \frac{9}{9} = \frac{54}{72}$$

Since these fractions have the same denominator, we can just add the numerators

$$\frac{48}{72} + \frac{54}{72} = \frac{102}{72}$$

$\frac{102}{72}$ can be reduced, since 6 is a factor of both 102 and 72:

$$\frac{102}{72} \div \frac{6}{6} = \frac{17}{12}$$

The fraction is now in lowest terms

Because $\frac{17}{12}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number

$$\frac{17}{12} = 1\frac{5}{12}$$

multiple of the denominators

The least common multiple of 9 and 10 is 90, so we need to multiply to make each of the denominators = 90

$$\frac{7}{9} * \frac{10}{10} = \frac{70}{90}$$

$$\frac{4}{10} * \frac{9}{9} = \frac{36}{90}$$

Since these fractions have the same denominator, we can just add the numerators

$$\frac{70}{90} + \frac{36}{90} = \frac{106}{90}$$

$\frac{106}{90}$ can be reduced, since 2 is a factor of both 106 and 90:

$$\frac{106}{90} \div \frac{2}{2} = \frac{53}{45}$$

The fraction is now in lowest terms

Because $\frac{53}{45}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number

$$\frac{53}{45} = 1\frac{8}{45}$$

$\frac{8}{6}$ can be reduced, since 2 is a factor of both 8 and 6:

$$\frac{8}{6} \div \frac{2}{2} = \frac{4}{3}$$

The fraction is now in lowest terms

Because $\frac{4}{3}$ is an improper fraction (the numerator is greater than the denominator), we need to convert it to a mixed number

$$\frac{4}{3} = 1\frac{1}{3}$$

$\frac{3}{6}$ can be reduced, since 3 is a factor of both 3 and 6:

$$\frac{3}{6} \div \frac{3}{3} = \frac{1}{2}$$

The fraction is now in lowest terms