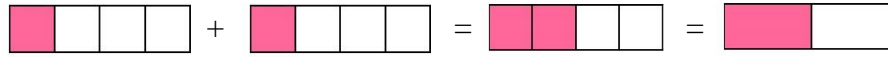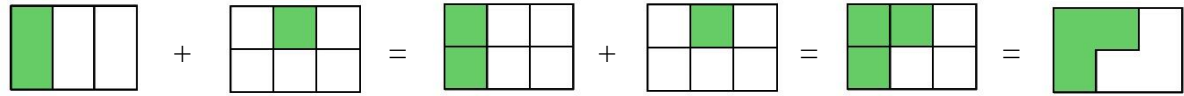# Check Your Answers on Adding Fractions!

1. $\frac{1}{2}$ $\left(\frac{1}{4} + \frac{1}{4} = \frac{2}{4} = \frac{1}{2}\right)$
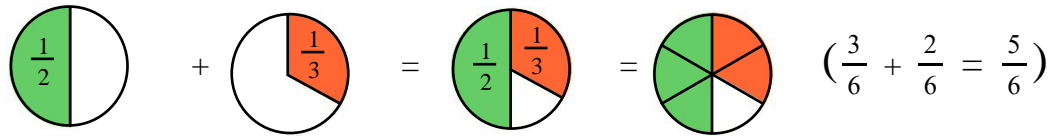

2. $\frac{1}{2}$ $\left(\frac{1}{3} + \frac{1}{6} = \frac{2}{6} + \frac{1}{6} = \frac{1}{2}\right)$

3. 24

The least common multiple (LCM) is the smallest number that is a multiple of all the listed numbers. Multiples of 4 are 4, 8, 12, 16. 20, 24 … Multiples of 6 are 6, 12, 18, 24 .. Multiples of 8 are 8, 16, 24 …

4. $\frac{5}{6}$ $\left(\frac{1}{2} + \frac{1}{3}\right)$

$\left(\frac{3}{6} + \frac{2}{6} = \frac{5}{6}\right)$

5. $\frac{2}{3}$ $\left(\frac{2}{9} + \frac{4}{9} = \frac{6}{9} \div \frac{3}{3} = \frac{2}{3}\right)$

Adding requires "like terms" or common denominators. When the denominators are the same, combine the numerators. Don't forget to simplify your answer!

6. $\frac{3}{4}$ $\left(\frac{5}{12} + \frac{1}{3} = \frac{5}{12} + \frac{1}{3} \cdot \frac{4}{4} = \frac{5}{12} + \frac{4}{12} = \frac{9}{12} \div \frac{3}{3} = \frac{3}{4}\right)$

It may be necessary to produce a common denominator (the least common multiple of the 2 denominators) by multiplying by some form of 1 (which does not change the value) before combining the numerators.

7. $\frac{13}{20}$ $\left(\frac{2}{5} + \frac{1}{4} = \frac{2}{5} \cdot \frac{4}{4} + \frac{1}{4} \cdot \frac{5}{5} = \frac{8}{20} + \frac{5}{20} = \frac{13}{20}\right)$

In order to add these fractions, it is necessary to produce equivalent fractions with the same denominator.

8. $\frac{29}{24}$ $\left(\frac{5}{6} + \frac{3}{8} = \frac{5}{6} \cdot \frac{4}{4} + \frac{3}{8} \cdot \frac{3}{3} = \frac{20}{24} + \frac{9}{24} = \frac{29}{24}\right)$

Although 48 is a common denominator, it is usually simpler to determine the *least* common denominator.

9. $1\frac{1}{36}$ $\left(\frac{4}{9} + \frac{7}{12} = \frac{4}{9} \cdot \frac{4}{4} + \frac{7}{12} \cdot \frac{3}{3} = \frac{16}{36} + \frac{21}{36} = \frac{37}{36} = 1\frac{1}{36}\right)$

It can be challenging to find the least common denominator which is the least common multiple between those two denominators.

10. $4\frac{1}{4}$ $\left(2\frac{1}{3} + 1\frac{3}{4} + \frac{1}{6} = \frac{7}{3} + \frac{7}{4} + \frac{1}{6} = \frac{7}{3} \cdot \frac{4}{4} + \frac{7}{4} \cdot \frac{3}{3} + \frac{1}{6} \cdot \frac{2}{2} = \frac{28}{12} + \frac{21}{12} + \frac{2}{12} = \frac{51}{12} = 4\frac{3}{12} = 4\frac{1}{4}\right)$ Great work!

Perfect score? Yes! You've got this!! You're ready to move on to the next section!!!