

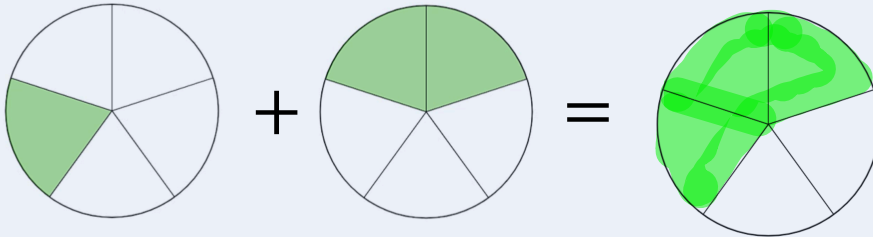
Adding/Subtracting Fractions

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Instructions: Use the lesson video (<https://youtu.be/fevmacFKwuA?si=4fABSotoE1MS1zo6>) to complete the following notes. After you have filled out the notes, complete the practice questions.

Notes

Example 1: Use the diagrams to shade and write the correct answer.



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

Example 2: Get a common denominator and then add the fractions. Make sure to reduce your answer.

$$\begin{aligned} \frac{1}{4} + \frac{3}{8} \\ = \frac{2}{8} + \frac{3}{8} \\ = \frac{5}{8} \end{aligned}$$

Multiples of 4: 4, 8, 12, 16, 20, ...
Multiples of 8: 8, 16, 24, 32, ...
LCD is 8

Example 3: Get a common denominator and then subtract the fractions. Make sure to reduced your answer.

$$\begin{aligned} \frac{3}{10} - \frac{2}{15} \\ = \frac{9}{30} - \frac{4}{30} \\ = \frac{5}{30} \\ = \frac{1}{6} \end{aligned}$$

Multiples of 10: 10, 20, 30, 40, 50, ...
Multiples of 15: 15, 30, 45, 60, 75, ...
LCD is 30

Practice Questions

Evaluate each of the following. Make sure to simplify your answers.

$$\begin{aligned} 1) \frac{5}{4} - \frac{3}{4} \\ &= \frac{2}{4} \\ &= \frac{1}{2} \end{aligned}$$

$$\begin{aligned} 2) \frac{3}{2} - \frac{1}{2} \\ &= \frac{2}{2} \\ &= 1 \end{aligned}$$

$$\begin{aligned} 3) \frac{2}{5} + \frac{4}{5} \\ &= \frac{6}{5} \end{aligned}$$

$$\begin{aligned} 4) 6 - \frac{1}{6} \\ &= \frac{6^6}{1^6} - \frac{1}{6} \\ &= \frac{36}{6} - \frac{1}{6} \\ &= \frac{35}{6} \end{aligned}$$

$$\begin{aligned} 5) -\frac{4^6}{5^4} - \frac{7^5}{8^5} \\ &= \frac{-32}{40} - \frac{35}{40} \\ &= \frac{-67}{40} \end{aligned}$$

$$\begin{aligned} 6) -\frac{1^6}{3^4} + \frac{3^3}{8^3} \\ &= \frac{-8}{24} + \frac{9}{24} \\ &= \frac{1}{24} \end{aligned}$$

$$\begin{aligned} 7) \frac{9^3}{5^3} - \frac{4^5}{3^5} \\ &= \frac{27}{15} - \frac{20}{15} \\ &= \frac{7}{15} \end{aligned}$$

$$\begin{aligned} 8) \frac{10^3}{7^3} + \frac{1}{14} \\ &= \frac{20}{14} + \frac{1}{14} \\ &= \frac{21}{14} \\ &= \frac{3}{2} \end{aligned}$$

$$\begin{aligned} 9) -\frac{4^3}{3^3} - \frac{3^3}{2^3} \\ &= \frac{-8}{6} - \frac{9}{6} \\ &= \frac{-17}{6} \end{aligned}$$

$$\begin{aligned} 10) \frac{9^6}{5^6} - \frac{5^5}{8^5} \\ &= \frac{72}{40} - \frac{25}{40} \\ &= \frac{47}{40} \end{aligned}$$

$$\begin{aligned} 11) \frac{2^7}{5^4} + \frac{3}{20} \\ &= \frac{8}{20} + \frac{3}{20} \\ &= \frac{11}{20} \end{aligned}$$

$$\begin{aligned} 12) \frac{-2}{9} + 2 \\ &= \frac{-2}{9} + \frac{2^9}{1^9} \\ &= \frac{-2}{9} + \frac{18}{9} \\ &= \frac{16}{9} \end{aligned}$$