

Simplifying Fractions

Aim: use common factors to simplify fractions

Use common factors, simplify the following fractions to their simplest form:

1. $\frac{4}{16} = \text{---}$

2. $\frac{14}{21} = \text{---}$

3. $\frac{6}{15} = \text{---}$

4. $\frac{18}{34} = \text{---}$

5. $\frac{9}{12} = \text{---}$

6. $\frac{36}{45} = \text{---}$

7. $\frac{12}{20} = \text{---}$

8. $\frac{42}{64} = \text{---}$

9. $\frac{15}{24} = \text{---}$

10. $\frac{15}{35} = \text{---}$

11. $\frac{14}{16} = \text{---}$

12. $\frac{3}{33} = \text{---}$

13. $\frac{9}{18} = \text{---}$

14. $\frac{9}{27} = \text{---}$

15. $\frac{15}{25} = \text{---}$

16. $\frac{18}{54} = \text{---}$

17. $\frac{6}{8} = \text{---}$

18. $\frac{42}{49} = \text{---}$

Find the Mixed Equivalent Fractions

LO: I can write the equivalent fraction.

Write 3 equivalent fractions to each of these fractions.

1. $\frac{1}{2} =$

9. $\frac{1}{6} =$

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

10. $\frac{11}{12} =$

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

11. $\frac{1}{5} =$

4. $\frac{4}{5} =$

12. $\frac{1}{4} =$

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

13. $\frac{5}{12} =$

6. $\frac{5}{6} =$

14. $\frac{1}{10} =$

7. $\frac{3}{10} =$

15. $\frac{2}{5} =$

8. $\frac{7}{8} =$

16. $\frac{1}{8} =$

Adding and Subtracting Fractions with Denominators that are Multiples

Aim: To add and subtract fractions with denominators that are multiples of the same number

Add the following fractions by changing one of the denominators so that they are the same. Then, write the answer in its simplest form. For each calculation, give a pair of fractions with different denominators that are multiples of the same number.

Example: $\frac{1}{4} + \frac{2}{8}$ $\frac{2}{8} = \frac{1}{4}$ $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$ can be simplified to $\frac{1}{2}$

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

2. $\frac{1}{4} + \frac{1}{8} =$

3. $\frac{1}{2} + \frac{3}{10} =$

4. $\frac{2}{5} + \frac{7}{15} =$

5. $\frac{3}{4} + \frac{1}{12} =$

Subtract the following fractions by changing one of the denominators so that they are the same. Then, write the answer in its simplest form.

6. $\frac{1}{2} - \frac{1}{6} =$

7. $\frac{6}{8} - \frac{1}{4} =$

8. $\frac{3}{5} - \frac{3}{10} =$

9. $\frac{2}{3} - \frac{4}{15} =$

10. $\frac{4}{5} - \frac{4}{20} =$

Challenge

For each of these addition and subtraction calculations, write a pair of fractions with different denominators that are multiples that total the given fraction. Watch out - some of the fractions may have been written in their simplest forms!

$+$ $= \frac{5}{8}$

$-$ $= \frac{7}{10}$

$-$ $= \frac{5}{12}$

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

Multiplying Fractions by Whole Numbers

Work out the calculations below and put the answers in the boxes.

1. $\frac{1}{2} \times 6 =$

6. $\frac{1}{8} \times 9 =$

2. $\frac{1}{3} \times 7 =$

7. $\frac{1}{10} \times 7 =$

3. $\frac{1}{4} \times 9 =$

8. $\frac{1}{8} \times 5 =$

4. $\frac{1}{5} \times 12 =$

9. $\frac{1}{6} \times 6 =$

5. $\frac{1}{4} \times 8 =$

10. $\frac{1}{9} \times 12 =$

Multiply Fractions

Calculate the following. Give your answer in the simplest form.

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

6. $\frac{1}{2} \times \frac{2}{3} =$

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

7. $\frac{7}{12} \times \frac{2}{3} =$

3. $\frac{4}{5} \times \frac{1}{6} =$

8. $\frac{1}{4} \times \frac{5}{7} =$

4. $\frac{3}{8} \times \frac{4}{5} =$

9. $\frac{4}{9} \times \frac{1}{4} =$

5. $\frac{5}{6} \times \frac{3}{8} =$

10. $\frac{2}{5} \times \frac{5}{9} =$