

# M8 - 6.1 - Simplification WS

*Simplify the following fractions*

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

$$\frac{3}{6} =$$

$$\frac{4}{8} =$$

$$\frac{3}{9} =$$

$$\frac{2}{6} =$$

$$\frac{2}{8} =$$

$$\frac{3}{12} =$$

$$\frac{2}{16} =$$

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

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

$$\frac{7}{14} =$$

$$\frac{2}{14} =$$

$$\frac{6}{8} =$$

$$\frac{4}{16} =$$

$$\frac{9}{12} =$$

$$\frac{9}{21} =$$

$$\frac{16}{16} =$$

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

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

$$\frac{9}{3} =$$

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

$$\frac{18}{9} =$$

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

$$\frac{16}{4} =$$

$$\frac{12}{24} =$$

$$\frac{15}{45} =$$

$$\frac{16}{64} =$$

$$\frac{13}{65} =$$

$$\frac{10}{40} =$$

$$\frac{15}{90} =$$

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

$$\frac{5}{25} =$$

$$\frac{6}{30} =$$

$$\frac{7}{42} =$$

$$\frac{5}{40} =$$

$$\frac{12}{48} =$$

*Simplify the following fractions*

$$\frac{6}{4} =$$

$$\frac{15}{10} =$$

$$\frac{18}{4} =$$

$$\frac{14}{8} =$$

$$\frac{12}{8} =$$

$$\frac{15}{6} =$$

$$\frac{24}{10} =$$

$$\frac{54}{10} =$$

$$\frac{20}{12} =$$

$$\frac{42}{14} =$$

$$\frac{22}{8} =$$

$$\frac{52}{10} =$$

$$\frac{24}{18} =$$

$$\frac{44}{33} =$$

$$\frac{56}{12} =$$

$$\frac{32}{6} =$$

$$\frac{56}{18} =$$

$$\frac{28}{21} =$$

# M8 - 6.1 - Expansion WS

**Multiply the top and bottom by 2**

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

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

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

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

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

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

**Multiply the top and bottom by 3**

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

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

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

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

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

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

**Multiply the top and bottom by 4**

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

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

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

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

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

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

**Multiply the top and bottom by 5**

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

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

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

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

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

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

**Change to a denominator of 12**

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

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

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

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

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

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

**Multiply the top and bottom by 30**

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

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

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

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

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

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

**Expand the following fractions by any factor.**

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

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

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

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

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

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

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

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

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

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

## M8 - 6.2 - Multiplying WS

Multiply the following fractions.

$$\frac{2}{3} \times \frac{4}{5} =$$

$$\frac{1}{7} \times \frac{3}{10} =$$

$$\frac{1}{5} \times \frac{6}{7} =$$

$$\frac{2}{7} \times \frac{4}{5} =$$

$$\frac{1}{3} \times \frac{5}{8} =$$

$$\frac{2}{9} \times \frac{4}{5} =$$

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

$$\frac{7}{2} \times \frac{1}{5} =$$

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

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

$$\frac{1}{3} \times \frac{4}{7} =$$

$$\frac{8}{9} \times \frac{2}{1} =$$

$$\frac{2}{3} \times \frac{4}{5} =$$

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

$$\frac{3}{5} \times \frac{2}{7} =$$

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

$$\frac{3}{8} \times \frac{3}{2} =$$

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

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

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

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

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

$$\frac{3}{5} \times \frac{7}{8} =$$

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

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

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

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

Multiply then simplify if necessary, or simplify first then multiply.

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

$$\frac{6}{7} \times \frac{2}{3} =$$

$$\frac{1}{3} \times \frac{9}{11} =$$

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

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

$$\frac{2}{5} \times \frac{25}{27} =$$

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

$$\frac{1}{3} \times 3^2 =$$

$$\frac{7}{2} \times \frac{4}{21} =$$

$$\frac{1}{3} \times 3^3 =$$

$$4 \times \frac{3}{16} =$$

$$\frac{2}{8} \times \frac{3}{6} =$$

## M8 - 6.2 - Dividing Fractions WS

Divide the following fractions.

$$\frac{1}{2} \div \frac{4}{7} =$$

$$\frac{2}{7} \div \frac{3}{5} =$$

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

$$\frac{3}{10} \div \frac{1}{3} =$$

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

$$\frac{3}{7} \div \frac{1}{2} =$$

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

$$\frac{5}{7} \div \frac{4}{5} =$$

$$\frac{1}{2} \div \frac{4}{7} =$$

$$\frac{2}{11} \div \frac{1}{3} =$$

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

$$\frac{2}{7} \div \frac{3}{5} =$$

$$\frac{1}{4} \div 2 =$$

$$\frac{3}{5} \div 4 =$$

$$0 \div \frac{1}{2} =$$

$$\frac{1}{2} \div 0 =$$

$$\frac{1}{7} \div \frac{1}{3} \div \frac{5}{2} =$$

$$\frac{5}{\left(\frac{1}{3}\right)} =$$

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

$$\frac{\left(\frac{2}{5}\right)}{\left(\frac{3}{4}\right)} =$$

Divide the following fractions then simplify.

$$\frac{1}{4} \div \frac{1}{2} =$$

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

$$\frac{9}{14} \div 3 =$$

$$\frac{6}{7} \div 3 =$$

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

$$\frac{10}{11} \div 5 =$$

$$2 \div \frac{5}{4} =$$

$$7 \div \frac{5}{6} =$$

$$\frac{2}{5} \div \frac{3}{10}$$

## M8 - 6.3 - Improper to Mixed Fractions WS

Convert from an improper fraction to a mixed number

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

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

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

$$\frac{7}{2} =$$

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

$$\frac{19}{3} =$$

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

$$\frac{15}{4} =$$

$$\frac{23}{6} =$$

$$\frac{23}{5} =$$

$$\frac{21}{4} =$$

$$\frac{19}{6} =$$

$$\frac{27}{2} =$$

$$\frac{17}{3} =$$

$$\frac{27}{5} =$$

$$\frac{35}{4} =$$

$$\frac{37}{7} =$$

$$\frac{33}{5} =$$

$$\frac{69}{8} =$$

$$\frac{46}{7} =$$

$$\frac{58}{7} =$$

$$\frac{41}{6} =$$

$$\frac{6}{3} =$$

$$\frac{43}{14} =$$

$$\frac{31}{13} =$$

$$\frac{137}{10} =$$

$$\frac{35}{16} =$$

$$\frac{91}{12} =$$

$$\frac{41}{11} =$$

$$\frac{65}{12} =$$

$$\frac{49}{17} =$$

$$\frac{71}{15} =$$

$$\frac{100}{9} =$$

$$\frac{8}{6} =$$

$$\frac{10}{6} =$$

$$\frac{6}{4} =$$

$$\frac{10}{4} =$$

## M8 - 6.3 - Mixed to Improper Fractions

Convert from a mixed number to an improper fraction

$$2\frac{1}{2}$$

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

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

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

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

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

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

$$5\frac{1}{4} =$$

$$7\frac{2}{3} =$$

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

$$11\frac{1}{2} =$$

$$7\frac{3}{8} =$$

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

$$12\frac{2}{3} =$$

$$6\frac{5}{9} =$$

$$4\frac{2}{5} =$$

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

$$1\frac{19}{20} =$$

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

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

$$9\frac{3}{7} =$$

$$5\frac{3}{11} =$$

$$7\frac{5}{7} =$$

$$13\frac{4}{9} =$$

$$12\frac{7}{13} =$$

$$8\frac{2}{17} =$$

$$4\frac{7}{25} =$$

# M8 - 6.4 - Adding Fractions WS

Add the following fractions

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

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

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

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

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

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

$$\frac{1}{7} + \frac{2}{7} =$$

$$\frac{1}{9} + \frac{4}{9} =$$

Add the following fractions by finding the LCD

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

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

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

$$\frac{1}{5} + \frac{5}{7} =$$

$$\frac{1}{4} + \frac{2}{7} =$$

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

Add the following fractions by finding the LCD

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

$$\frac{1}{3} + \frac{2}{9} =$$

$$\frac{15}{24} + \frac{1}{3} =$$

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

$$\frac{1}{7} + \frac{3}{14} =$$

$$\frac{4}{7} + \frac{4}{35} =$$

Add the following fractions by finding the LCD

$$\frac{1}{6} + \frac{4}{9} =$$

$$\frac{5}{12} + \frac{3}{8} =$$

Add the following fractions by finding the LCD. Don't forget to simplify

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

$$\frac{1}{3} + \frac{4}{6} =$$

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

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

$$\frac{2}{15} + \frac{5}{12} =$$

Add the following fractions by finding the LCD. Don't forget to simplify or change to a mixed number.

$$\frac{3}{8} + \frac{2}{3} =$$

$$5 + \frac{1}{4} =$$

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

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

$$\frac{3}{5} + \frac{4}{6} =$$

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

$$\frac{12}{24} + \frac{11}{12} =$$

$$\frac{8}{4} + \frac{4}{4} =$$

$$\frac{2}{1} + \frac{3}{4} =$$

$$\frac{1}{4} + \frac{2}{5} =$$

$$\frac{4}{12} + \frac{12}{2} =$$

# M8 - 6.4 - Subtracting Fractions WS

Subtract the following fractions

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

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

$$\frac{5}{7} - \frac{2}{7} =$$

$$\frac{5}{9} - \frac{3}{9} =$$

Subtract the following fractions by finding the LCD

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

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

$$\frac{4}{5} - \frac{1}{3} =$$

$$\frac{5}{7} - \frac{1}{5} =$$

$$\frac{2}{3} - \frac{3}{8} =$$

Subtract the following fractions by finding the LCD

$$\frac{1}{3} - \frac{2}{9} =$$

$$\frac{1}{3} - \frac{1}{6} =$$

$$\frac{15}{24} - \frac{1}{3} =$$

Subtract the following fractions by finding the LCD, then simplify

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

$$\frac{11}{12} - \frac{12}{24} =$$

$$\frac{5}{18} - \frac{2}{9} =$$

Subtract the following fractions then simplify, or simplify first.

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

$$\frac{4}{12} - \frac{1}{6} =$$

$$\frac{4}{6} - \frac{1}{3} =$$

$$\frac{3}{7} - \frac{6}{21} =$$

$$\frac{2}{3} - \frac{3}{9} =$$

Subtract the following fractions by finding the LCD, change to a mixed number.

$$5 - \frac{1}{4} =$$

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

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

Subtract the following fractions then simplify

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

$$\frac{8}{4} - \frac{4}{4} =$$

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

$$\frac{1}{2} - \frac{2}{4} =$$

$$\frac{2}{4} - \frac{4}{8} =$$

$$\frac{17}{34} - \frac{1}{2} =$$