

# M8 - 4.1 - Fractions-Decimals HW

**Convert from fractions to decimals.**

$$\frac{1}{10} = 0.1$$

$$\frac{1}{2} = \frac{5}{10} = 0.5$$

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

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

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

$$\frac{3}{20} =$$

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

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

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

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

$$\frac{1}{25} =$$

$$\frac{2}{25} =$$

$$\frac{3}{25} =$$

$$\frac{3}{50} =$$

$$\frac{7}{50} =$$

$$\frac{3}{100} =$$

$$\frac{3}{1000} =$$

$$\frac{1}{500} =$$

$$\frac{303}{1000} =$$

$$\frac{31}{100} =$$

**Convert from fractions to repeating decimals.**

$$\frac{1}{9} = 0.\bar{1}$$

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

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

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

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

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

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

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

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

$$\frac{8}{9} =$$

**Convert from mixed fractions to decimals.**

$$1\frac{1}{3} = 1 + 0.\bar{3} = 1.\bar{3}$$

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

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

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

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

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

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

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

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

**Convert from an improper fraction to a mixed fraction, then to a decimal.**

$$\frac{11}{5} = 2\frac{1}{5} = 2.2$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{10}{9} =$$

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

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

## M8 - 4.1 - Fractions-Decimals Calc HW

Convert from fractions to decimals using long division or your calculator, to three decimal places or show that it is repeating.

$$\frac{1}{6} = 0.1\bar{6}$$

$$\frac{1}{8} = 0.125$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# M8 - 4.1 - Decimals-Fractions HW

## Convert from decimals to fractions

$0.1 = \frac{1}{10}$

$0.5 = \frac{5}{10} = \frac{1}{2}$

$0.2 =$

$0.25 =$

$0.4 =$

$0.15 =$

$0.6 =$

$0.8 =$

$0.75 =$

$0.05 =$

$0.04 =$

$0.08 =$

$0.12 =$

$0.06 =$

$0.14 =$

$0.03 =$

$0.003 =$

$0.002 =$

$0.303 =$

$0.31 =$

## Convert from repeating decimals to fractions.

$0.\bar{1} = \frac{1}{9}$

$0.\bar{6} =$

$0.\bar{3} =$

$0.1\bar{6} =$

$0.\bar{4} =$

$0.8\bar{3} =$

$0.\bar{2} =$

$0.\bar{7} =$

$0.\bar{5} =$

$0.\bar{8} =$

## Convert from decimals to mixed fractions.

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

$2.5 =$

$5.2 =$

$3.25 =$

$3.4 =$

$5.\bar{6} =$

$3.\bar{1} =$

$4.\bar{2} =$

$4.75 =$

## Convert from a decimal to a mixed fraction, then to an improper fraction.

$2.2 =$

$1.5 =$

$2.5 =$

$3.5 =$

$4.5 =$

$1.\bar{3} =$

$1.\bar{6} =$

$2.\bar{3} =$

$2.\bar{6} =$

$1.25 =$

$1.1\bar{6} =$

$1.75 =$

$2.25 =$

$1.6 =$

$1.2 =$

$1.4 =$

$1.\bar{1} =$

$1.8 =$

## M8 - 4.1 - Decimals-% HW

**Convert from decimals to percentages.**

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 0.1 =   | 0.5 =   | 0.2 =   | 0.25 =  | 0.4 =   |
| 0.15 =  | 0.6 =   | 0.8 =   | 0.75 =  | 0.05 =  |
| 0.04 =  | 0.08 =  | 0.12 =  | 0.06 =  | 0.14 =  |
| 0.03 =  | 0.003 = | 0.002 = | 0.303 = | 0.31 =  |
| 0.200 = | 0.123 = | 0.452 = | 0.195 = | 0.322 = |
| 0.400 = | 0.05 =  | 0.02 =  | 0.005 = | 0.109 = |
| 0.370 = | 0.823 = | 0.764 = | 0.631 = | 0.540 = |

**Convert from repeating decimals to repeating percentages.**

|                |                |               |                |               |
|----------------|----------------|---------------|----------------|---------------|
| $0.\bar{1}$ =  | $0.\bar{6}$ =  | $0.\bar{3}$ = | $0.1\bar{6}$ = | $0.\bar{4}$ = |
| $0.8\bar{3}$ = | $0.\bar{2}$ =  | $0.\bar{7}$ = | $0.\bar{5}$ =  | $0.\bar{8}$ = |
| $5.\bar{6}$ =  | $3.\bar{1}$ =  | $4.\bar{2}$ = | $2.\bar{6}$ =  | $2.\bar{3}$ = |
| $1.\bar{6}$ =  | $1.1\bar{6}$ = | $1.\bar{3}$ = | $1.\bar{1}$ =  | $1.\bar{3}$ = |

**Convert from decimals to percentages.**

|        |        |       |        |        |
|--------|--------|-------|--------|--------|
| 3.4 =  | 2.5 =  | 5.2 = | 3.25 = | 4.75 = |
| 2.2 =  | 1.5 =  | 2.5 = | 3.5 =  | 4.5 =  |
| 1.75 = | 2.25 = | 1.6 = | 1.25 = | 1.2 =  |
| 1.4 =  | 1.8 =  | 4.5 = | 10 =   | 10.4 = |
| 2.0 =  | 3 =    | 17 =  | 100 =  | 350 =  |

# M8 - 4.1 - %-Decimals HW

**Convert from a percentage to a decimal.**

$10\% = 0.1$

$60\% = 0.6$

$20\% =$

$80\% =$

$50\% =$

$30\% =$

$70\% =$

$40\% =$

$90\% =$

$25\% =$

$75\% =$

$89\% =$

$15\% =$

$32\% =$

$62\% =$

$45\% =$

$11.\bar{1}\% =$

$77.\bar{7}\% =$

$33.\bar{3}\% =$

$88.\bar{8}\% =$

$55.\bar{5}\% =$

$22.\bar{2}\% =$

$66.\bar{6}\% =$

$44.\bar{4}\%$

$150\% =$

$120\% =$

$125\% =$

$225\% =$

$1000\% =$

$570\% =$

$1200\% =$

$1250\% =$

$1\% =$

$2\% =$

$5\% =$

$0.3\% =$

$0.5\% =$

$0.\bar{6}\% =$

$9\% =$

$7\% =$

$14\frac{1}{2}\% =$

$128.7\% =$

$25.2\% =$

$130.4\% =$

## M8 - 4.1 - Fractions-% HW

**Convert from fractions to percentages.**

$$\frac{4}{5} = \frac{80}{100} = 0.8 = 80\%$$

$$\frac{1}{5} = \frac{2}{10} = 0.2 = 20\%$$

$$\frac{2}{25} =$$

$$\frac{3}{20} =$$

$$\frac{31}{100} =$$

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

$$\frac{1}{25} =$$

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

$$\frac{3}{25} =$$

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

$$\frac{303}{1000} =$$

$$\frac{1}{500} =$$

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

$$\frac{3}{1000} =$$

$$\frac{3}{50} =$$

$$\frac{7}{50} =$$

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

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

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

$$\frac{3}{100} =$$

**Convert from fractions to repeating percentages.**

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

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

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

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

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

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

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

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

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

$$\frac{8}{9} =$$

**Convert from mixed fractions to percentages.**

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

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

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

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

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

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

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

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

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

**Convert from an improper fraction to a mixed fraction, then to a percentage.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\frac{10}{9} =$$

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

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

## M8 - 4.1 - %-Fractions HW

**Convert from a percentage to a fraction and simplify.**

$10\% =$

$20\% =$

$30\% =$

$40\% =$

$50\% =$

$60\% =$

$70\% =$

$80\% =$

$90\% =$

$25\% =$

$75\% =$

$89\% =$

$15\% =$

$32\% =$

$62\% =$

$45\% =$

$150\% =$

$120\% =$

$125\% =$

$225\% =$

$1000\% =$

$570\% =$

$1200\% =$

$1250\% =$

**Express as a fraction over 9.**

$11.\bar{1}\% =$

$22.\bar{2}\% =$

$33.\bar{3}\% =$

$44.\bar{4}\%$

$55.\bar{5}\% =$

$66.\bar{6}\% =$

$77.\bar{7}\% =$

$88.\bar{8}\% =$

**Express as a fraction over 6.**

$16.66\% =$

$33.33\% =$

$50\% =$

$66.66\% =$

$83.33\% =$

**Express as a fraction over 3.**

$33.33\% =$

$66.66\% =$