

HW: 2-1 MathXL for School Additional Practice  
(on Google Classroom)

**Warm up:**

Express the following decimals as fractions.

1)  $0.5\overline{5}$

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

2)  $0.65\overline{65}$

$$\frac{65}{99}$$

3)  $5.018\overline{018}$

$$5 \frac{18}{999} = 5 \frac{2}{111}$$

$$x = 0.\overline{44}$$

$$10x = 4.\overline{44}$$

$$10x - x = 4.\overline{44} - 0.\overline{44}$$

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

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

$$x = 0.35\overline{5} \quad \begin{array}{r} - 0.5\overline{5} \\ - 0.3\overline{5} \\ \hline 0.2 \end{array}$$

$$10x = 3.5\overline{5}$$

$$100x = 35.5\overline{5}$$

$$100x - 10x = 35.5\overline{5} - 3.5\overline{5}$$

$$\frac{90x}{90} = \frac{32}{90}$$

$$x = \frac{32}{90} = \frac{16}{45}$$

$$0.5\overline{5} - 0.2$$

$$\frac{5}{9} - \frac{2}{10}$$

$$\frac{5}{9} - \frac{1}{5}$$

$$\frac{25}{45} - \frac{9}{45}$$

$$= \frac{16}{45}$$

$$x = 0.7\overline{22}$$

$$10x = 7.2\overline{22}$$

$$100x = 72.2\overline{22}$$

$$100x - 10x = 72.2\overline{22} - 7.2\overline{22}$$

$$\frac{90x}{90} = \frac{65}{90}$$

$$x = \frac{65}{90} = \frac{13}{18}$$

$$0.2\overline{22} + 0.5$$

$$\frac{2}{9} + \frac{1}{2} = \frac{4}{18} + \frac{9}{18} = \frac{13}{18}$$

$$x = 0.24\overline{11}$$

$$100x = 24.\overline{11}$$

$$1000x = 241.\overline{11}$$

$$1000x - 100x = 241.\overline{11} - 24.\overline{11}$$

$$\frac{900x}{900} = \frac{217}{900}$$

$$x = \frac{217}{900}$$

$$0.\overline{1111} + 0.13$$

$$\frac{1}{9} + \frac{13}{100}$$

$$\frac{100}{900} + \frac{117}{900}$$

$$\begin{array}{r} 213 \\ \times 9 \\ \hline 117 \end{array}$$

$$\frac{217}{900}$$

1)  $0.6\overline{77}$

2)  $0.94\overline{4}$

3)  $0.816\overline{6}$

4)  $3.905\overline{5}$

$$x = 0.\overline{677}$$

$$10x = 6.\overline{77}$$

$$100x = 67.\overline{77}$$

$$100x - 10x = 67.\overline{77} - 6.\overline{77}$$

$$\frac{90x}{90} = \frac{61}{90}$$

$$x = \frac{61}{90}$$

$$0.\overline{777} - 0.1$$

$$\frac{7}{9} - \frac{1}{10}$$

$$\frac{70}{90} - \frac{9}{90}$$

$$\frac{61}{90}$$

$$x = 0.\overline{944}$$

$$10x = 9.\overline{44}$$

$$100x = 94.\overline{44}$$

$$100x - 10x = 94.\overline{44} - 9.\overline{44}$$

$$\frac{90x}{90} = \frac{85}{90}$$

$$x = \frac{17}{18}$$

$$0.\overline{444} + 0.5$$

$$\frac{4}{9} + \frac{1}{2}$$



$$3) \overset{x}{0.816\bar{6}}$$

$$0.\overline{6666} \approx 0.15$$

$$100x = 81.\bar{6}$$

$$1000x = 816.\bar{6}$$

$$1000x - 100x = 816.\bar{6} - 81.\bar{6}$$

$$\frac{900x}{900} = \frac{735}{900}$$

$$\begin{array}{r} 147 \\ 5 \overline{) 735} \\ \underline{- 50} \phantom{0} \\ 235 \\ \underline{- 200} \phantom{0} \\ 355 \\ \underline{- 315} \\ 40 \end{array}$$

$$\begin{array}{r} 49 \\ 3 \overline{) 147} \\ \underline{- 120} \\ 27 \\ \underline{- 27} \\ 0 \end{array}$$

$$x = \frac{147}{180} = \frac{49}{60}$$

$$4) \overset{x=}{3.905\overline{5}}$$

$$100x = 90.5\overline{5}$$

$$1000x = 905.5\overline{5}$$

$$1000x - 100x = 905.5\overline{5} - 90.5\overline{5}$$

$$\frac{900x = 815}{900 \quad 900}$$

$$\frac{900x = 815}{900 \quad 900}$$

$$x = 3\frac{163}{180}$$

3

$$0.555\overline{5} + 0.35$$

