

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

Warm up:

Express the following decimals as fractions.

$$1) 0.5\bar{5} = \frac{5}{9}$$

$$2) 0.65\bar{65} = \frac{65}{99} \quad 0.\overline{65}$$

$$3) 5.018\overline{018} = 5 \frac{18}{999} = \left(5 \frac{2}{111} \right)$$

$$\begin{array}{r} x = 0.4\overline{4} \\ 10x = 4.4\overline{4} \\ \hline \end{array} \quad \begin{array}{r} 4.4\overline{4} \\ - 0.4\overline{4} \\ \hline 4 \end{array}$$

$$10x - x = 4.4\overline{4} - 0.4\overline{4}$$

$$\begin{array}{r} 9x = 4 \\ \hline x = \frac{4}{9} \end{array}$$

$$x = 0.35\overline{5}$$

$$\begin{array}{r} \cancel{0.5\overline{5}} \\ - \cancel{0.3\overline{5}} \\ \hline 0.2 \end{array}$$

$$\begin{aligned} 10x &= 3.5\overline{5} \\ 100x &= 35.5\overline{5} \\ 100x - 10x &= 35.5\overline{5} - 3.5\overline{5} \end{aligned}$$

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

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

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

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

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

$$\frac{25}{45} - \frac{5}{9} =$$

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

$$x = 0.\overline{722} = \frac{0.7\overline{22} - 0.2\overline{22}}{0.5}$$

$$10x = 7.\overline{22}$$

$$100x = 72.\overline{22}$$

$$100x - 10x = 72.\overline{22} - 7.\overline{22}$$

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

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

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

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

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

$$10x - x = 7.\overline{22} - 0.\overline{722}$$

$$\frac{9x}{9} = \frac{6.5}{9}$$

$$x = \frac{6.5}{9}$$

$$\frac{-\overset{3}{24}1}{217} \quad x = -0.\underbrace{241\bar{1}} \quad \frac{0.24\bar{1}}{-0.11\bar{1}} \quad \frac{0.13}{0.13}$$

$$\begin{aligned} 100x &= 24.\bar{1} \\ 1000x &= 241.\bar{1} \\ 1000x - 100x &= 241.\bar{1} - 24.\bar{1} \\ \frac{900x}{900} &= \frac{217}{900} \\ x &= \frac{217}{900} \end{aligned}$$

$$\begin{aligned} 0.11\bar{1} + 0.13 \\ \frac{1}{9} + \frac{13}{100} \\ \frac{100}{900} + \frac{117}{900} \\ \frac{217}{900} \end{aligned}$$

1) $0.6\overline{77}$

2) $0.94\overline{4}$

3) $0.816\overline{6}$

4) $3.905\overline{5}$

$$1) 0.6\overline{77}$$

$$0.7\overline{77} - 0.1$$

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

$$\frac{70}{90} - \frac{9}{90} = \frac{61}{90}$$

$$2) 0.9\overline{44}$$

$$0.4\overline{44} + 0.5$$

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

$$\frac{8}{18} + \frac{9}{18} = \frac{17}{18}$$

$$3) 0.81\overline{66}$$

$$\begin{array}{r} 0.81\overline{66} \\ -0.66\overline{66} \\ \hline 0.15 \end{array}$$

$$0.6\overline{66} + 0.15$$

$$\frac{6}{9} + \frac{15}{100}$$

$$\frac{\quad}{900} + \frac{\quad}{900}$$

4) $3.905\overline{5}$

