Unit 1 quiz 1 - sample solutions

#3) Convert $-4\frac{1}{5}$ to an improper fraction.

$\frac{D \times W + N}{5}$

$-4\frac{1}{5} = -\left(\frac{5 \times 4 + 1}{5}\right)$

$= \frac{-21}{5}$

* Mistake (error)

$-4\frac{1}{5} = \frac{5 \times (-4) + 1}{5}$

$= \frac{-20+1}{5} = \frac{-19}{5}$

#9) $-\frac{5}{3} \times -\frac{2}{5}$

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

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

$= \frac{10}{15} \div 5 = \boxed{\frac{2}{3}}$

reduce to lowest terms!

#10) $-\frac{2}{7} - \frac{6}{7}$

$= \frac{-2}{7} - \frac{6}{7}$

$= \frac{-2-6}{7} = \boxed{\frac{-8}{7}}$

16) Convert 0.2375 to a fraction in lowest terms.

$0.2375 = \frac{2375}{10000}$ Now Reduce!

↑ place value?

10000th

$\frac{2375 \div 25}{10000 \div 25} = \frac{95 \div 5}{400 \div 5} = \frac{19}{80}$

» is 19 prime? Yes.

Does 19 divide evenly into 80? No.

∴ $\frac{19}{80}$ is lowest terms.

#18) Find the period of $7\frac{1}{12}$.

$7 + 1 \div 12 = 7.0833333\ldots$

$= 7.083\overline{3}$

What #s are repeating in the decimal? 3

and that is the period.

$= 3.$

OR

$\frac{12 \times 7 + 1}{12} = \frac{85}{12} = 85 \div 12 = 7.0833\ldots$

$= 7.083\overline{3}$

#19) Expand $2.0\overline{1357}$ to eight decimal places and round off answer.

Step 1:

$2.0\overline{1357}\_\_\_$

↑↑↑↑↑

5 decimal places → we need 3 more spaces

Step 2: fill in with repeating pattern

$2.01357135\overset{\curvearrowright}{7}$

Step 3: then round off to eight places $= 2.0135713\overset{\curvearrowleft}{5}\overset{\curvearrowright}{7}$

$= 2.01357136$ when rounded!