

Lesson 9: Fractions and BEDMAS. dec 11, 2020
(continued)

Decimals

23. $\frac{5}{12} \div \left(\frac{2}{3} + \frac{1}{4} \right) \times \left(-2\frac{1}{2} + \frac{4}{5} \right)$

$\frac{5}{12} \div \left(\frac{2 \times 4}{3 \times 4} + \frac{1 \times 3}{4 \times 3} \right) \times \left(\frac{-5 \times 5}{2 \times 5} + \frac{4 \times 2}{5 \times 2} \right)$
 LCD = $3 \times 4 = 12$ LCD = $2 \times 5 = 10$

$\frac{5}{12} \div \left(\frac{8}{12} + \frac{3}{12} \right) \times \left(\frac{-25}{10} + \frac{8}{10} \right)$

$\frac{5}{12} \div \left(\frac{8+3}{12} \right) \times \left(\frac{-25+8}{10} \right)$

$\frac{5}{12} \div \left(\frac{11}{12} \right) \times \left(\frac{-17}{10} \right)$

$\frac{5}{12} \times \frac{12}{11} \times \left(\frac{-17}{10} \right)$

$\frac{5 \times 12 \times (-17)}{12 \times 11 \times 10}$

$\frac{-85}{110} \div \frac{5}{5}$
 $\frac{110}{110} \div \frac{5}{5}$

↑ to simplify

$\frac{-17}{22}$

step i: convert mixed numbers into fractions

use calculator

$\boxed{a \frac{b}{c}}$ $\boxed{b/c}$ $\boxed{\text{change}}$

step ii: To know which operation to do first, follow

- ① B $-\left(\frac{2 \times 2}{1 \times 2} + \frac{1}{2}\right)$
- ② E $-\left(\frac{4}{2} + \frac{1}{2}\right)$
- ③ D. left to right $-\left(\frac{4+1}{2}\right)$
- ④ A/S left to right $-\frac{5}{2}$

$$24. \left[\frac{1}{3} \left(8\frac{1}{3} - 1\frac{1}{2} \right) \right] - \frac{1}{2} \left(\frac{5}{2} - \frac{6}{4} \right) = \frac{16}{9}$$

$$\left[\frac{1}{3} \times \left(\frac{25 \times 2}{3 \times 2} - \frac{3 \times 3}{2 \times 3} \right) \right] - \frac{1}{2} \times \left(\frac{5 \times 2}{2 \times 2} - \frac{6}{4} \right)$$

$$\left[\frac{1}{3} \left(\frac{50}{6} - \frac{9}{6} \right) \right] - \frac{1}{2} \left(\frac{10}{4} - \frac{6}{4} \right)$$

$$\left[\frac{1}{3} \left(\frac{41}{6} \right) \right] - \frac{1}{2} \left(\frac{4}{4} \right)$$

$$\left[\frac{1}{3} \left(\frac{41}{6} \right) \right] - \frac{1}{2} \cdot 1$$

$$\left[\frac{1 \times 41}{3 \times 6} \right] - \frac{1}{2}$$

$$\frac{41}{18} - \frac{1 \times 9}{2 \times 9}$$

$$\frac{41}{18} - \frac{9}{18}$$

$$\frac{41 - 9}{18}$$

$$\frac{32}{18} \quad \begin{matrix} 0 \\ 10 \\ 0 \\ 10 \end{matrix} \quad \begin{matrix} 2 \\ 2 \end{matrix}$$

$$\boxed{\frac{16}{9}}$$

remember! if no operation, it's 'x'.

$$\frac{8 \times 3}{1 \times 3} + \frac{1}{3}$$

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

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

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

remember: You do not need same denominator for \times .

recall

$$3 \times 1 = 3$$

$$10 \times 1 = 10$$

$$x \cdot 1 = x$$

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

Converting Decimals to Fractions and Mixed Numbers

it's question of reading.

Recall: $\frac{.3}{4}$ reads three fourths
 (num) (den)

$\frac{7}{10}$ reads seven tenths

$\frac{3}{1000}$ reads three thousandths

Reading decimals

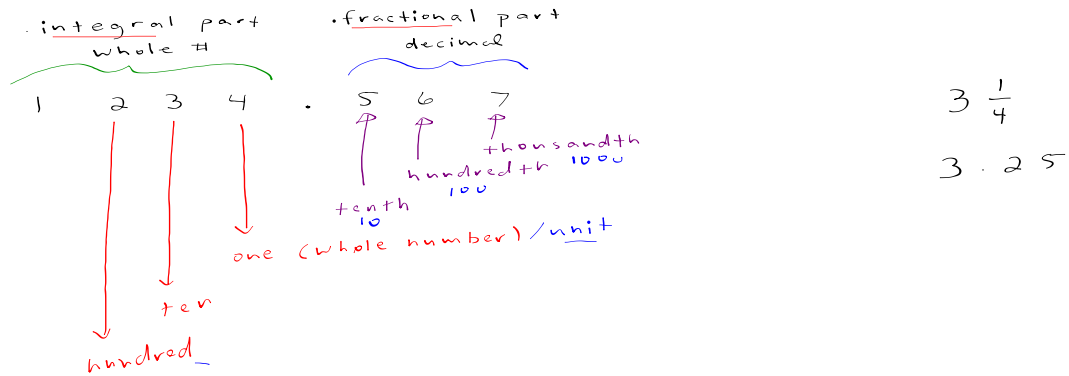
e.x. $\boxed{0.5}$ reads zero point five
 → five tenths (points to fraction)
 (num) (den) $\frac{5}{10}$

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

e.x. $\boxed{0.25}$ reads 25 hundredths
 (num) (den) $\frac{25}{100}$

$\frac{1}{4}$

Reading Decimal Using Their Place Value



ex. Convert to a mixed number

34.5

34 and $\frac{5}{10}$ tenths

$34 + \frac{5}{10}$

$34 \frac{\frac{5}{10}}{\frac{5}{5}}$

$34 \frac{1}{2}$

- Step i. Read number and say decimal w its place value.
- Step ii. Construct the fraction.
- Step iii. Simplify fractional part.

ex. 2.04

2 and 4 hundredth

$2 + \frac{4}{100}$

$2 \frac{1}{25}$

note: you say the lowest place value

ex convert to fraction

0.125 125 thousandth

$\frac{125}{1000} = \frac{125}{1000}$

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

ex. 2.80 \$

to simplify ignore zero to right

$\frac{8}{10} = \frac{80}{100}$

Do ex 1.1 pg 1.8 → Practice exercise.

a) 0.4

.....

$$\begin{array}{r} 4 \\ 1.0 \overline{) 4.0} \\ \underline{4.0} \\ 0 \end{array}$$
$$\begin{array}{r} 2 \\ 5 \overline{) 10} \\ \underline{10} \\ 0 \end{array}$$