

03-09-26 MDE 10

## Chapter 4 - Decimals

### 4.1 Decimals

4.1 Exercise Set, page 253: 1, 7, 11, 19, 23, 25

Exam 2 Wednesday, 03/11/26

3.1 - 3.6, 4.1

### Before class notes

#### 4.1: 11

Use the choices below to fill in each blank.

words	decimals	and
tens	tenths	standard form

1. The number "twenty and eight hundredths" is written in words and "20.08" is written in \_\_\_\_\_.

#### 4.1

Fill in each check for the described purchase. See Example 5.

19. Your monthly car loan of \$321.42 to R. W. Financial.

The check form includes the following fields and handwritten entries:

- Your Preprinted Name: R. W. Financial
- Your Preprinted Address: [Blank]
- DATE: [Blank]
- PAY TO THE ORDER OF: R. W. Financial
- AMOUNT: \$ 321 and  $\frac{42}{100}$
- MEMO: car loan
- Signature line: Your signature

#### 4.1

**Objective D** Write each fraction as a decimal. See Examples 13 through 16.

63.  $\frac{9}{100}$

0.09  
ninety hundredths

$$63. \frac{9}{100}$$

0. 0 9  
tenths hundredths

3.6: 13

13. A decorative wall in a garden is to be built using bricks that are  $2\frac{3}{4}$  inches wide and mortar joints that are  $\frac{1}{2}$  inch wide. Use the diagram to find the height of the wall.



$$\begin{array}{l} \text{bricks} \\ (4)(2\frac{3}{4} \text{ in}) + \text{mortar joints} \\ 3(\frac{1}{2} \text{ in}) \end{array}$$

$$(4)(2 + \frac{3}{4}) + 3(\frac{1}{2})$$

$$(4)(2) + 4(\frac{3}{4}) + \frac{3}{2}$$

$$8 + 3 + \frac{3}{2}$$

$$11\frac{3}{2}$$

$$11 + (1 + \frac{1}{2})$$

$$12\frac{1}{2} \text{ in}$$

$$(4)(\frac{11}{4}) + \frac{3}{2}$$

$$11 + \frac{3}{2}$$

$$11 + 1 + \frac{1}{2}$$

$$12\frac{1}{2} \text{ in}$$

3.5

Use the order of operations to simplify each expression.

$$56. \frac{2}{5} \cdot \left( 5 - \frac{1}{2} \right) - 1$$

use distributive property

$$\frac{2}{5} \left( \frac{5}{1} - \frac{1}{2} \right) - 1$$

$$\frac{2}{5} \left( \left( \frac{5}{1} \right) \left( \frac{2}{2} \right) - \frac{1}{2} \right) - 1$$

$$\frac{2}{5} \left( \frac{10}{2} - \frac{1}{2} \right) - 1$$

$$\frac{2}{5} \left( \frac{10-1}{2} \right) - 1$$

$$\frac{2}{5} \left( \frac{9}{2} \right) - 1$$

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

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

$$\frac{9}{5} - \left( \frac{1}{1} \right) \left( \frac{5}{5} \right)$$

$$\frac{9-5}{5} = \frac{4}{5}$$

$$\left( \frac{2}{5} \right) (5) - \left( \frac{2}{5} \right) \left( \frac{1}{2} \right) - 1$$

$$2 - \frac{1}{5} - 1$$

$$(2-1) - \frac{1}{5}$$

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

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

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

$$1 \frac{4}{5} - 1$$

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

$$70. \left( \frac{1}{6} + \frac{1}{3} \right)^3 + \left( \frac{2}{5} \cdot \frac{3}{4} \right)^2$$

$$\left( \frac{1}{6} + \left( \frac{1}{3} \right) \left( \frac{2}{2} \right) \right)^3 + \left( \frac{2}{5} \cdot \frac{3}{4} \right)^2$$

LCM (6, 3) = 6  
 $2 \cdot 6 \cdot 1 = 6$   
 $3 \cdot 1 = 3$   
 $3 \cdot 2 = 6$

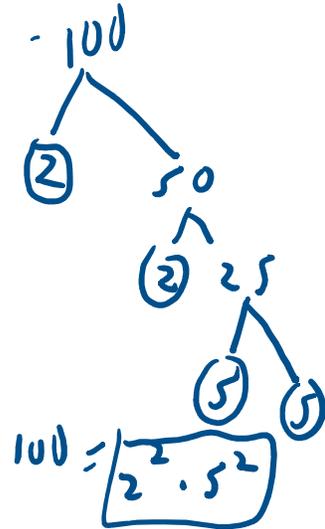
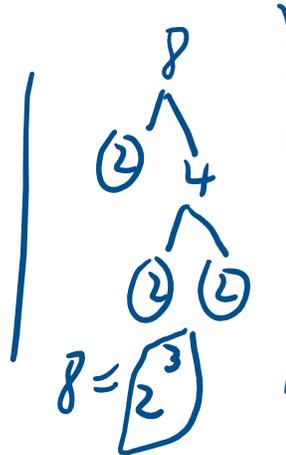
$$\left(\frac{1}{6} + \frac{2}{6}\right)^3 + \left(\frac{1}{5} \cdot \frac{3}{2}\right)^2$$

$$\left(\frac{3}{6}\right)^3 + \left(\frac{3}{10}\right)^2$$

$$\left(\frac{1}{2}\right)^3 + \left(\frac{3}{10}\right)^2$$

$$\frac{1}{8} + \frac{9}{100}$$

$$\frac{1}{8} + \frac{9}{100}$$



$$\text{LCM}(8, 100) = 2^3 \cdot 5^2$$

$$= 18(25)$$

$$= 200$$

$$\left(\frac{1}{8}\right)\left(\frac{25}{25}\right) + \left(\frac{9}{100}\right)\left(\frac{2}{2}\right)$$

$$\frac{25 + 18}{200} = \frac{43}{200}$$

$$\left(\frac{1}{6} + \frac{1}{3}\right)^3 + \left(\frac{2}{5}\right) \cdot \left(\frac{3}{4}\right)$$

$$\frac{43}{200}$$