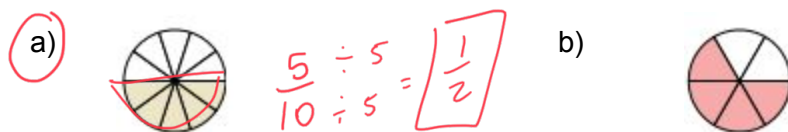


# T-MF Math Fundamentals Week 18

## Math Fundamental: Unit 2 Pre-Test

1.) (1 pt each, 2 pts total) Write the shaded amount as a fraction.



2.) (2 pts each, 4 pts total) Solve each fraction as though it were a division problem. Write your answer as a mixed number.

a)  $\frac{78}{8}$

$$\begin{array}{r} 9 \\ 8 \overline{) 78} \\ \underline{-72} \\ 6 \end{array}$$
$$9 \frac{6}{8} \div \frac{2}{2} = \boxed{9 \frac{3}{4}}$$

b)  $\frac{57}{9}$

3.) (2 pts each, 4 pts total) Solve each problem. Make sure to write your answer as a fraction.

a) A doctor gave his patient liquid medicine and told him to drink 28 cups over the next 6 days. How much should the patient drink each day?

$$\frac{28}{6}$$
$$6 \overline{) 28} \begin{array}{r} 4 \\ \underline{-24} \\ 4 \end{array}$$
$$4 \frac{4}{6} = \boxed{4 \frac{2}{3}}$$

b) Sam had collected 60 leaves to feed to his caterpillar collection. If he wanted to split the leaves equally amongst the 7 cages, how much should he put in each cage?

4.) (2 pts each, 4 pts total) Solve each problem. Write the answer as a mixed number fraction (if possible).

a)  $\frac{9}{12} - \frac{1}{12} = \frac{8 \div 4}{12 \div 4} = \frac{2}{3}$

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

5.) (3 pts each, 6 pts total) Solve each problem. Write the answer as a mixed number fraction (if possible).

a)  $\frac{8}{10} - \frac{2}{4}$

$\frac{32}{40} - \frac{20}{40} = \frac{12}{40}$

$\frac{8}{10} = \frac{32}{40}$  (\*4)

$\frac{2}{4} = \frac{20}{40}$  (\*10)

$\frac{12}{40} = \frac{3}{10}$  (12 ÷ 4, 40 ÷ 4)

b)  $\frac{3}{6} + \frac{3}{8}$

6.) (3 pts each, 6 pts total) Solve each problem.

a)  $\frac{5}{1} \times \frac{1}{8} = \frac{5}{8}$

b)  $\frac{1}{12} \times 4$

7.) (3 pts each, 6 pts total) Solve each problem. Answer as a mixed fraction.

$$\text{a) } 5 \times \frac{4}{6} = \frac{20}{6} \div 2 = \frac{10}{3}$$

$$\text{b) } \frac{6}{10} \times 3$$

8.) (3 pts each, 6 pts total) Solve each problem.

$$\text{a) } \frac{2}{3} \times \frac{1}{2} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$$
$$\frac{\cancel{2}}{3} \times \frac{1}{\cancel{2}} = \frac{1}{3}$$

$$\text{b) } \frac{9}{12} \times \frac{6}{8}$$

9.) (3 pts each, 12 pts total) Solve each problem. Answer as an improper fraction (if necessary)

a)  $\frac{6}{7} \times \frac{7}{10}$

$\frac{6}{7} \times \frac{7}{10} = \frac{6}{10} = \frac{3}{5}$   
 $\frac{6}{1} \times \frac{1}{10} = \frac{6}{10} = \frac{3}{5}$

b)  $\frac{9}{24} \times \frac{6}{90}$

$3 \frac{4}{6} = \frac{(3 \times 6) + 4}{6} = \frac{22}{6}$   
 $\frac{22}{6} \times \frac{6}{90} = \frac{22}{90} = \frac{11}{45}$

d)  $\frac{7}{9} \times \frac{15}{4}$

10.) (3 pts each, 6 pts total) Solve each problem. Write your answer as a mixed number (if possible).

a)  $\frac{1}{2} \div 9$

$\frac{1}{2} \div \frac{9}{1} = \frac{1}{2} \times \frac{1}{9} = \frac{1}{18}$

b)  $7 \div \frac{1}{5}$

11.) (3 pts each, 6 pts total) Write your answer as a mixed number (if possible).

a)  $\frac{22}{8} \div \frac{11}{2}$

$$\frac{22}{8} \div \frac{11}{2} = \frac{22}{8} * \frac{2}{11} = \frac{44}{88} = \frac{1}{2}$$

$$\frac{22}{8} \div \frac{11}{2} = \frac{22}{4} * \frac{1}{11} = \frac{22}{44} = \frac{1}{2}$$

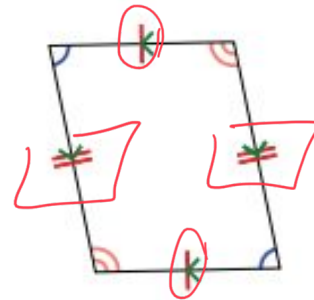
b)  $8\frac{1}{2} \div \frac{34}{6}$

12.) (3 pts each, 6 pts total) Name each of the following shapes. Place a check beside each category of shape for which it qualifies.

a) Name of Shape: Parallelogram

This shape also fall under the category of:

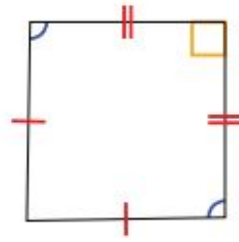
- kite
- parallelogram ←
- quadrilateral ←
- rectangle ← equal angles
- rhombus ← equal sides
- square
- trapezoid ← one side parallel



b) Name of Shape:

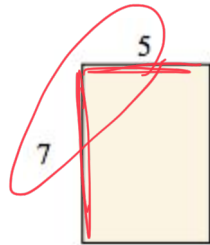
This shape also fall under the category of:

- kite
- parallelogram
- quadrilateral
- rectangle
- rhombus
- square
- trapezoid



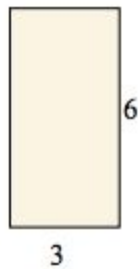
13.) (2 pts each, 4 pts total) Find the area (in cm) of the rectangles shown.

a)



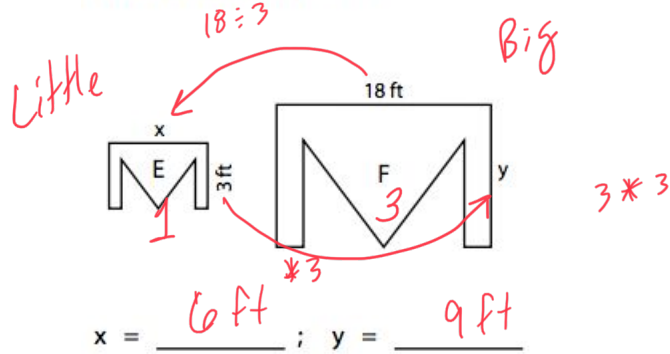
$$A = 7 \times 5 = 35 \text{ cm}^2$$

b)

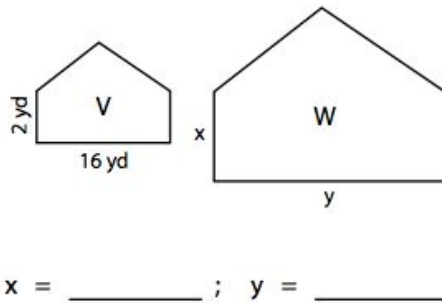


14.) (3 pts each, 6 pts total) Find x and y.

a) Scale factor of E to F is 1 : 3



b) Scale factor of W to V is 4 : 1



15.) (2 pts each, 4 pts total) Find the length, width and height of the rectangular prism. Then find the volume.

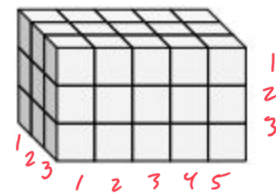
a) L = 5

W = 3

H = 3

V = 45 cubes  
units

$5 * 3$   
 $\swarrow$   
 $15 * 3 = 45$

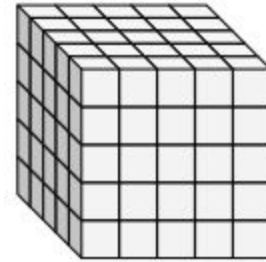


b) L = \_\_\_\_\_

W = \_\_\_\_\_

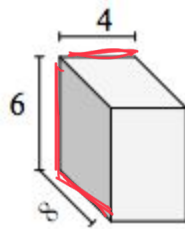
H = \_\_\_\_\_

V = \_\_\_\_\_



16.) (3 pts each, 6 pts total) Find the volume of each of the rectangular prisms. Measured in cm (not to scale).

a)

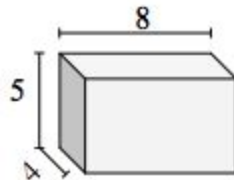


$$4 * 6 * 8$$

$$24 * 8 =$$

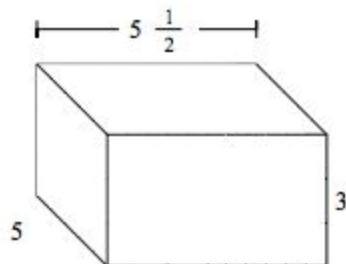
$$192 \text{ cm}^3$$

b)



17.) (3 pts each, 6 pts total) Find the volume of each of the rectangular prisms. Measured in cm (not to scale).

a)

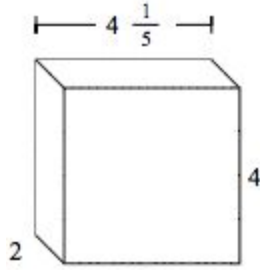


$$5 \frac{1}{2} = \frac{(5 * 2) + 1}{2} = \frac{11}{2}$$

$$\frac{11}{2} * \frac{5}{1} * \frac{3}{1} = \frac{165}{2} \text{ cm}^3$$

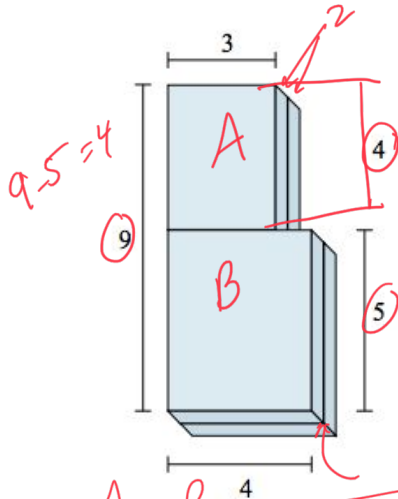


b)



18.) (3 pts each, 6 pts total) Find the total volume of each figure shown. Measured in cm (not to scale). Please note: the floating number represents the width of the figure

a)



Volume A

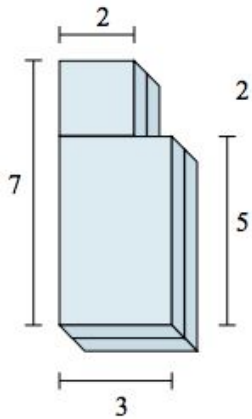
$$V = L * W * H \\ = 3 * 2 * 4 = 24$$

Volume B

$$V = L * W * H \\ 4 * 2 * 5 \\ \underbrace{8 * 5}_{= 40}$$

Total Volume = A + B  
 $24 + 40 = 64 \text{ cm}^3$

b)



HW  
 Unit 2 Pre-test  
 (Optional) HW 18 v2 Review  
 Unit 2 Test (Feb 16<sup>th</sup>)  
 HW/Quiz 16 due Feb 2<sup>nd</sup>  
 HW/Quiz 17 due Feb 9<sup>th</sup>  
 No Quiz 18!