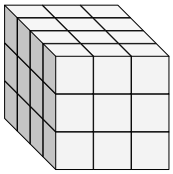
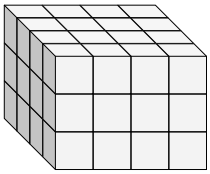
Find the length, width and height of the rectangular prism. Then find the volume.

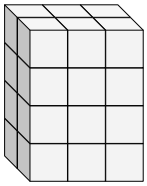
Ex)



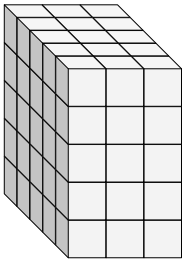
1)



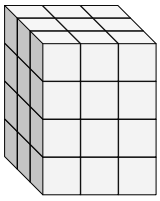
2)



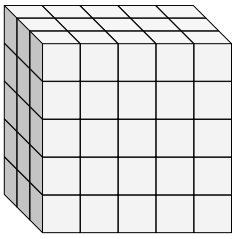
3)



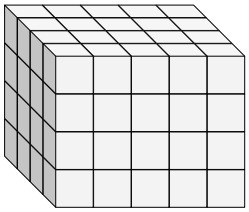
4)



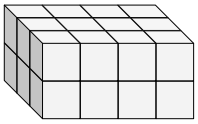
5)



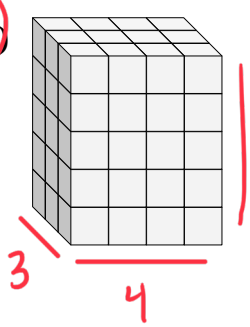
6)



7)

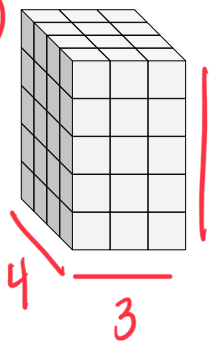


8)



D·W·H
3·4·5
12·5 =
60 units³

9)



D·W·H
4·3·5
60 units³

Answers

	D	W	H	V
Ex.	4	3	3	36
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				

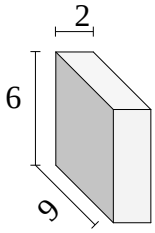
1-9	89	78	67	56	44	33	22	11	0

Finding Volume Of Rectangular Prisms

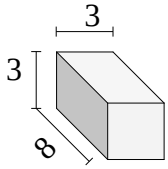
Name:

Find the volume of each of the rectangular prisms. Measured in cm (not to scale).

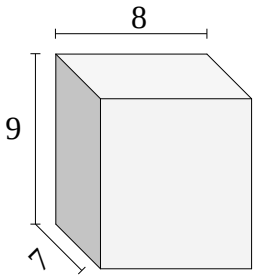
1)



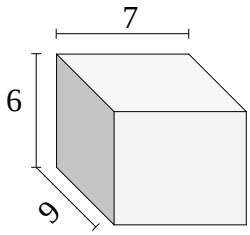
2)



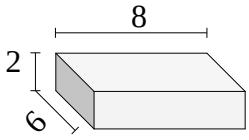
3)



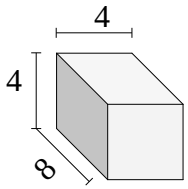
4)



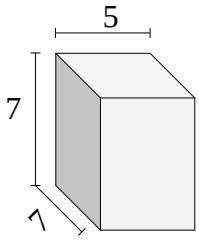
5)



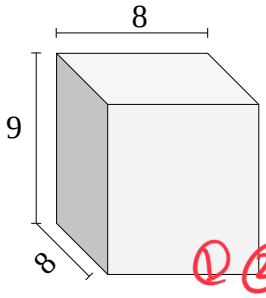
6)



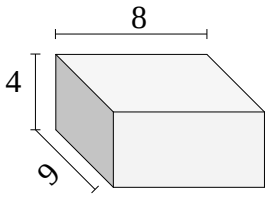
7)



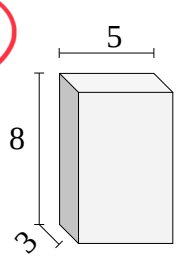
8)



9)



10)



① ② ③
8 · 4 · 9
288 units³

① ② ③
3 · 8 · 5
120 units³

Area → units²

Volume → units³

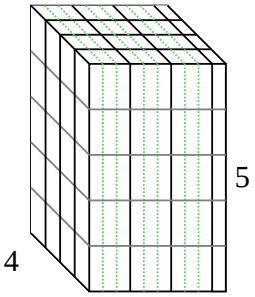
Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

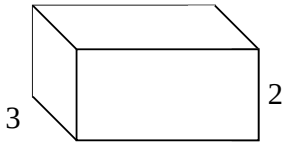
1-10	90	80	70	60	50	40	30	20	10	0

Fill each rectangular prism with cubes to determine the volume. Each prisms unit is measured in cm (not to scale).

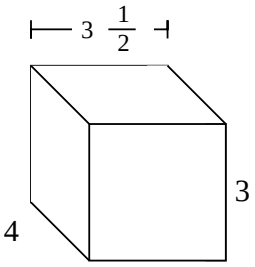
Ex)



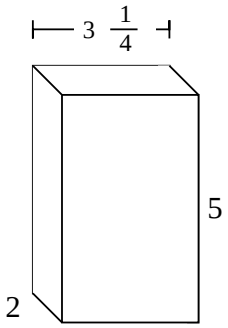
1)



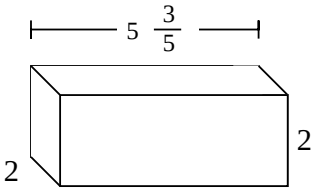
2)



3)



4)



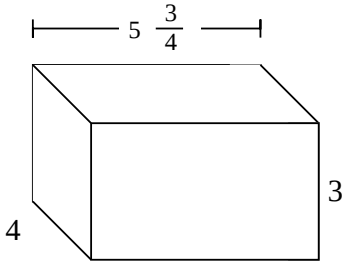
$5\frac{3}{5} = \frac{(5 \cdot 5)+3}{5}$

$\frac{28}{5}$

$2 \cdot 2 \cdot 5\frac{3}{5}$

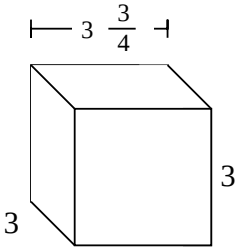
$2 \cdot 2 \cdot \frac{28}{5} = \frac{112}{5}$ units^3

5)



$3\frac{3}{4} = \frac{(3*4)+3}{4} = \frac{15}{4}$

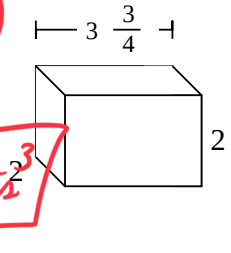
6)



$2 \cdot 2 \cdot \frac{15}{4}$

$\frac{4}{1} \cdot \frac{15}{4} = 15$ units^3

7)



Answers

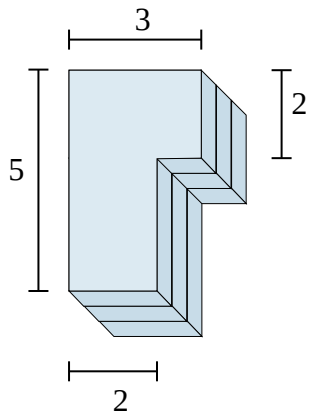
Ex. $66\frac{2}{3}$ cm^3

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

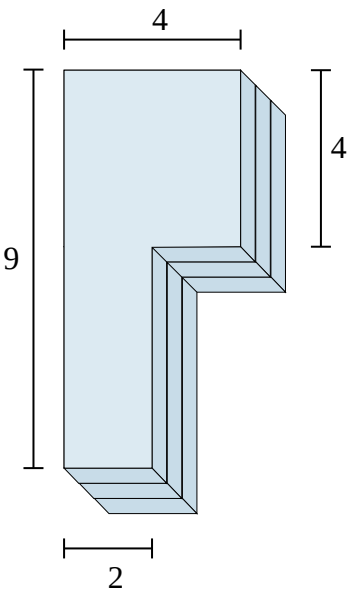
1-7	86	71	57	43	29	14	0

Find the total volume of each figure shown. Measured in cm (not to scale).

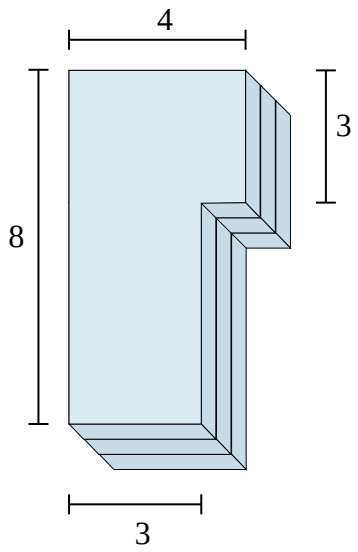
1)



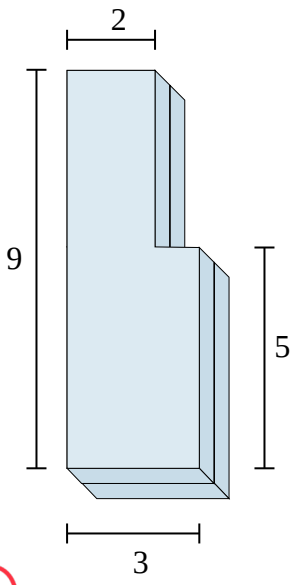
2)



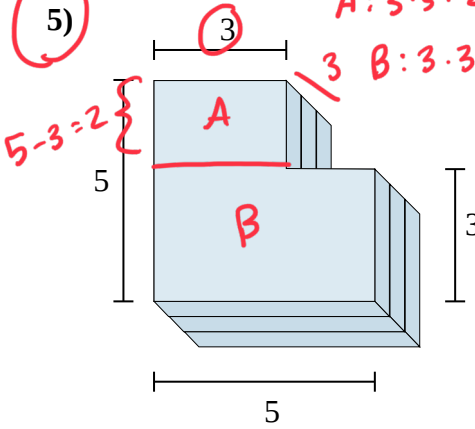
3)



4)



5)

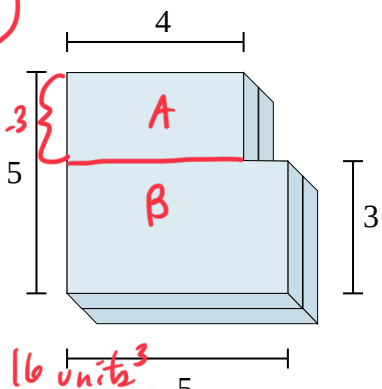


A: 3·3·2 = 18 units³

B: 3·3·5 = + 45 units³

63 units³

6)



A: 4·2·2 = 16 units³

B: 3·2·5 = 30 units³

46 units³

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

1-6	83	67	50	33	17	0

Math Fundamental: Unit 2 Pre-Test

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

a) 

$\frac{\text{shaded}}{\text{whole}} = \frac{5}{10} \div 5 = \frac{1}{2}$

b) 

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) $\frac{78}{8}$

$\frac{78}{8}$ $8\overline{)78}$ 9 R 6 -72 6

$9\frac{6}{8} \div 2 = 9\frac{3}{4}$

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?

$\frac{28}{6}$ $6\overline{)28}$ 4 -24 4

$4\frac{4}{6} \div 2 \div 2 = 4\frac{2}{3}$

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

$\frac{8}{10} = \frac{16}{20}$ (*2) $\quad \frac{2}{4} = \frac{10}{20}$ (*5)

$\frac{16}{20} - \frac{10}{20} = \frac{6 \div 2}{20 \div 2} = \frac{3}{10}$

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

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

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

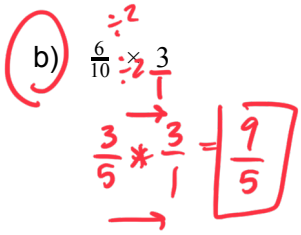
b) $\frac{1}{12} \times \frac{4}{1} \quad \frac{4 \div 4}{12 \div 4} = \frac{1}{3}$

$\frac{1}{12 \div 4} \times \frac{4 \div 4}{1} \quad \frac{1}{3} * \frac{1}{1} = \frac{1}{3}$

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

a) $5 \times \frac{4}{6}$

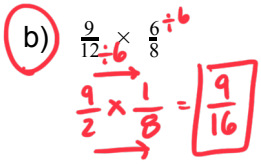
b) $\frac{6}{10} \times \frac{3}{1}$



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

a) $\frac{2}{3} \times \frac{1}{2}$

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

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

c) $\frac{3}{2} \times 3\frac{4}{6}$ $3\frac{4}{6} = \frac{(3*6)+4}{6} = \frac{18+4}{6} = \frac{22}{6}$

$\frac{3}{2} * \frac{22}{6}$ $\div 3$ $\div 3$

$\frac{1}{2} * \frac{22}{2}$ $\div 2$ $\div 2$

$\frac{1}{2} * \frac{11}{1} = \frac{11}{2}$

d) $\frac{7}{9} \times \frac{15}{4}$ $\div 3$ $\div 3$

$\frac{7}{3} * \frac{5}{4} = \frac{35}{12}$

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

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

b) $7 \div \frac{1}{5}$ Keep change flip

$\frac{7}{1} * \frac{5}{1} = \frac{35}{1} = 35$

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

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

Keep Change Flip!

$\frac{22}{8} \div 11 * \frac{2}{11} \div 11$

$\frac{2}{8} \div 2 * \frac{2}{1}$

$\frac{1}{4} \div 2 * \frac{2}{1} \div 2$

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

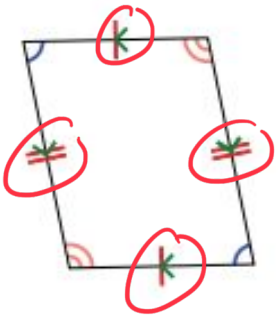
b) $8\frac{1}{2} \div \frac{34}{6}$

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:

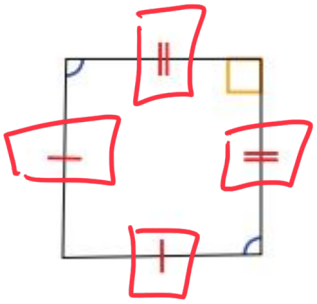
- [ ] kite
- [x] parallelogram
- [x] quadrilateral
- [ ] rectangle
- [ ] rhombus
- [ ] square
- [ ] trapezoid



b) Name of Shape: kite

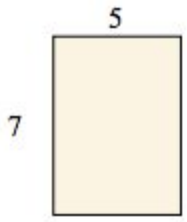
This shape also fall under the category of:

- [x] kite
- [ ] parallelogram
- [x] quadrilateral
- [ ] rectangle
- [ ] rhombus
- [ ] square
- [ ] trapezoid



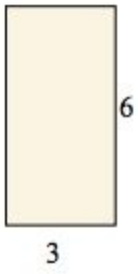
13.) (2 pts each, 4 pts total) Find the area (in cm) of the rectangles shown.

a)



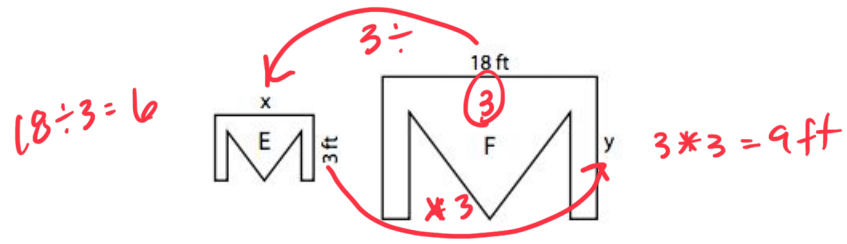
$5 \cdot 7 = 35\ cm^2$

b)



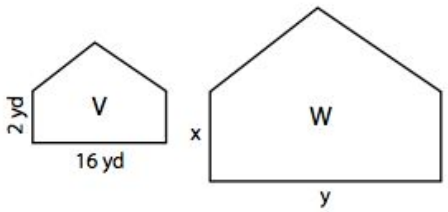
14.) (3 pts each, 6 pts total) Find x and y.

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



x = 6 ft ; y = 9ft

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



x = _____ ; y = _____

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

a) L = 5

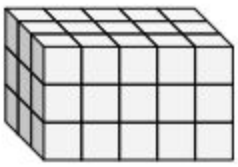
W = 3

H = 3

V = 45 units^3

5·3·3

15·3 = 45

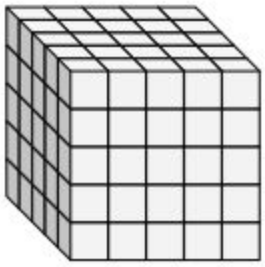


b) L = _____

W = _____

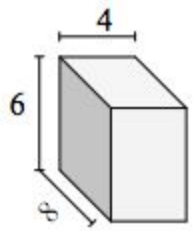
H = _____

V = _____



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

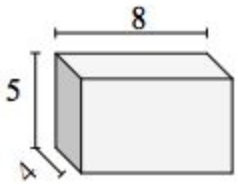
a)



$4 \cdot 6 \cdot 8$

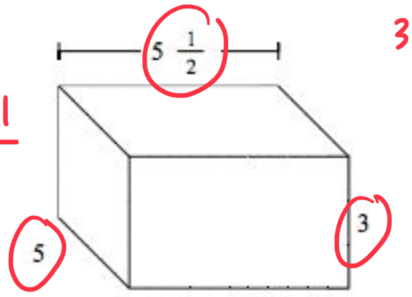
$24 \cdot 8 = 192\ cm^3$

b)



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

a)



$5\frac{1}{2} = \frac{5*2+1}{2}$

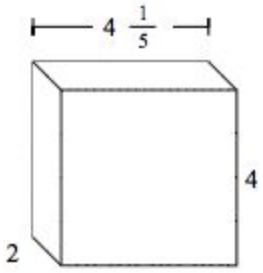
$\frac{11}{2}$

$3 \cdot 5 \cdot 5\frac{1}{2}$

$V = 5 \cdot 3 \cdot \frac{11}{2}$

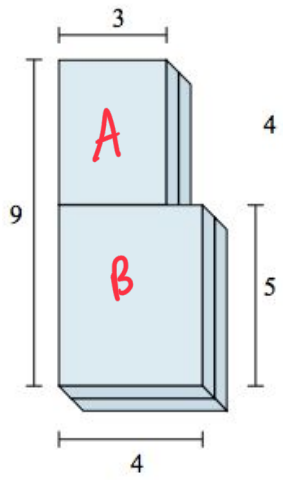
$15 \cdot \frac{11}{2} = \frac{165}{2}\ cm^3$

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)



A: $4 \cdot 2 \cdot 3 = 24$ units^3

B: $5 \cdot 4 \cdot 2 = 40$ units^3

$+$

64 units^3

b)