

1) Solve the following proportions:

- a) $A/12 = 20/48$ **A = 5**
 b) $45/B = 27/3$ **B = 5**
 c) $25/30 = C/42$ **C = 35**
 d) $3/9 = 9/D$ **D = 27**

2) Write the ratios of the following:

- a) The number of pennies in two dimes to the number of nickels in one dollar. **20:20 or 1:1**
 b) The number of seconds in a half minute to the number of hours in a half day. **30:12 or 5:2**

3) Find the unit rate of the following examples:

- a) \$24.50 for 7 pounds of butter. **\$3.50/pound**
 b) 6 miles run in $1\frac{1}{2}$ hours. **4 mi/hr**

4) Evaluate the problems below:

- a) What is 25% of 4? **1**
 b) 10 is 20% of what? **50**
 c) What percent of 60 is 30? **50%**

5) Fill in the chart below

fraction	decimal	percent
$1/5$	0.2	20%
$3/20$	0.15	15%
$4/5$	0.8	80%
$3/8$	0.375	37.5%
$9/10$	0.9	90%
$1/100$	0.01	1%

6) Compare using <, >, =

- $3/5$ < 3.55
 -0.7 > -6
 0.8 = $4/5$
 $6/8$ = 0.75
 -9 < -2.0

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7) If A = 0, B = 2 and C = 3, evaluate each expression below:

- a) $4(A + B + C)^2 =$ **100**
 b) $B^4 - A^2 =$ **16**

8) Solve each equation for X:

- a) $X - 25 = 30$ **X = 55**
 b) $12X = 60$ **X = 5**

9) Complete the chart below.

X	Y
2	12
3	18
5	30
7	42
10	60

Write a rule for completing the chart.

$$Y = 6X \text{ or } X = Y/6$$

10) Arrange in increasing order:

- 4.0, 4.4, $-4\frac{1}{2}$, 0.4, $(1)^4$
 $-4\frac{1}{2}$, -4.0, 0.4, $(1)^4$, 4.4

11) Add:

- a) $11 + 5\frac{1}{2} + 7\frac{5}{8} =$ **$24\frac{1}{8}$**
 b) $23 + 3.4 + 0.028 =$ **26.428**

12) Subtract:

- a) $9 - 8\frac{5}{6} =$ **$\frac{1}{6}$**
 b) $14\frac{3}{10} - 7\frac{4}{5} =$ **$6\frac{1}{2}$**
 c) $3 - 0.7 =$ **2.3**
 d) $22.1 - 6.207 =$ **15.893**

13) Multiply:

- a) $72 \times 365 =$ **26,280**
 b) $913 \times 100 =$ **91,300**
 c) $7.1 \times 0.44 =$ **3.124**
 d) $0.26 \times 10 =$ **2.6**
 e) $49 \times \frac{1}{7} =$ **7**
 f) $6\frac{1}{5} \times \frac{5}{8} =$ **$3\frac{7}{8}$**

14) Divide:

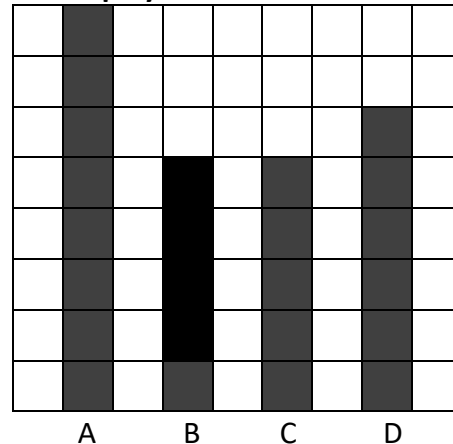
- a) $4.032 \div 4.8 =$ **0.84**
 b) $0.6 \div 1000 =$ **0.0006**

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- c) $35 \div 0.70 =$ **50**
 d) $1.44 \div 2.4 =$ **0.6**
 e) $\frac{1}{4} \div 2\frac{1}{4} =$ **$\frac{1}{9}$**
 f) $1\frac{2}{3} \div \frac{5}{6} =$ **2**

15) In the data display below, the value of column A is 16. Find the mean, median, mode and range of the display.

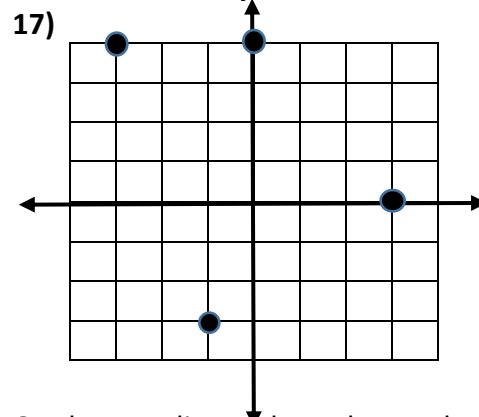
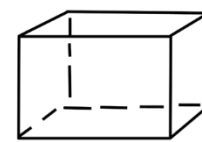


mean=12, median=11, mode=10, range=6

16) Find the volume and the total surface area of the rectangular prism below:

L = 6 in. W = 4 in. H = 4 in.

$$V = 96 \text{ in}^3 \quad SA = 128 \text{ in}^2$$



On the coordinate chart above, plot and label the following points:

A (-3,4) B (3,0) C (-1,-3) D (0,4)