1pg GLO7FB

KEY

Name

1) Solve the following proportions:

a) A/ -6 = 60/ -36 **A = 10**
b) 9/B = 72/32 **B = 4**
c) -11/88 = C/16 **C = -2**
d) 27/18 = 3/D **D = 2**

2) Write the ratios of the following:

a) The number of days in a non-leap year to the number of days in a leap year. **365:366**

b) The number of minutes in an hour to the number of hours in a day. **60:24 or 5:2**

3) Evaluate the problems below:

a) What is 15% of 40? **6**

b) 12 is 20% of what? **60**

c) What percent of 12 is 9? **75%**

4) Fill in the chart below

fraction	decimal	percent
5/8	**0.625**	**62.5%**
19/20	0.95	**95%**
1 1/10	**1.1**	110%
1/3	**$0.\overline{3}$**	**33 1/3%**
-7/10	-0.7	**-70%**
1/200	**0.005**	0.5%

5) Solve the following:

a) Find the new cost after a 25% discount has been taken off $48.00 **$36**

b) Compute the total cost a $28.00 meal plus a 20% tip. **$33.60**

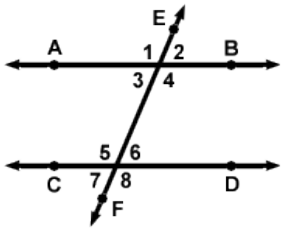
c) Total cost of a $12.00 item after a 5.5% tax is added. **$12.66**

d) Compute the percent of decrease on an item that originally sold for $16.00 but now sells for $12.00. **25%**

6) Compute:

a) -27 ÷ - 9 = **3**
b) -7 + (-3) + 5 = **-5**
c) $(-3)^3$ = **-27**
d) 4(7 -9) = **-8**
e) (-5) + (-8)(-2) = **11**
f) 33 ÷ - 11 = **-3**
g) (-4)(3)(2)(-1) = **24**
h) 6 + (-6) – 6 + (6) = **0**

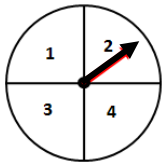
7) The diagram below shows a set of parallel lines being cut by a transversal. If the measure of angle 3 is 80^0, list the measures of each of the other numbered angles.
m∠ 2, m∠ 3, m∠ 6, m∠ 7 = 80^o
m∠ 1, m∠ 4, m∠ 5, m∠ 8 = 100^o



8) Using the same graphic above, evaluate the following:

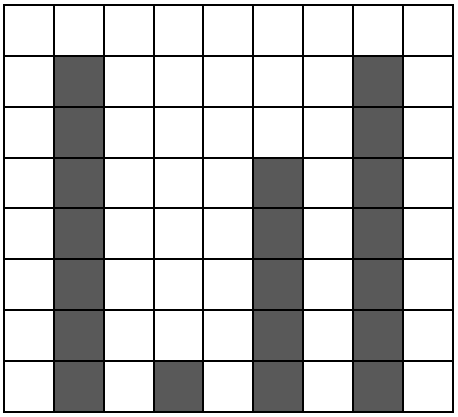
m∠ 1 + m∠ 3 = **180^o**
m∠ 5 + m∠ 7 = **180^o**
m∠ 1 + m∠ 4 = **200^o**
m∠ 1 - m∠ 4 = **0^o**
m∠ 2 - m∠ 3 = **0^o**
m∠ 5 + m∠ 6 + m∠ 7 + m∠ 8 = **360^o**

9) Using the spinner shown here, compute the following probabilities:



a) The probability of spinning a "3"= **¼**
b) The probability of spinning a number less than 5 = **1**
c) The probability of spinning a "2" on each of your next 3 spins? **1/64**

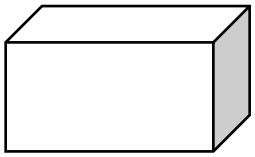
10) One of the shaded squares in the data display below will be chosen at random. What is the probability that the chosen square will come from column A or D?



7/10

11) The volume of the rectangular prism below is 48 in^3. Find the height and total surface area.

W = 2 in. L = 6 in.



H = **4 in** TSA = **88 in^2**

12) If X = -2, Y = -3 and Z = 5, evaluate the following expressions:

a) 4X – Y = **-5**
b) Y^3 – 2Z = **-37**
c) Y(XYZ) = **-90**

13) Solve for the variable shown:

a) 5M – 11 = M + 13 **M = 6**

b) 4(N + 5) = 0 **N = -5**

c) P + 6 + 5P = 48 **P = 7**