1pg GLO7FF

KEY

Name

1) Solve the following proportions:

a) A/ -2 = 40/ -16 **A = 5**
b) 6/B = 72/12 **B = 1**
c) -11/55 = C/35 **C = -7**
d) 27/45 = 3/D **D = 5**

2) Write the ratios of the following:

a) Three times the number of days in April to four times the number of days in June. **90:120 or 3:4**

b) The number of inches in two feet to the number of feet in five yards.

24:15 or 8:5

3) Evaluate the problems below:

a) What is 5% of 40? **2**

b) 17 is 10% of what? **170**

c) What percent of 12 is 4? **33 $^{1}/_{3}$%**

4) Fill in the chart below

fraction	decimal	percent
3/8	**0.375**	**37.5%**
3/20	0.15	**15%**
1 $^{7}/_{10}$	**1.7**	170%
2/3	**0.$\overline{6}$**	**66 $^{2}/_{3}$%**
-9/10	-0.9	**-90%**
3/1000	**0.003**	0.3%

5) Solve the following:

a) Find the new cost after a 25% discount has been taken off $20.00
$15

b) Compute the total cost a $35.00 meal plus a 20% tip.
$42

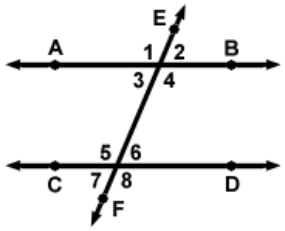
c) Total cost of a $20.00 item after a 5.5% tax is added.
$21.10

d) Compute the percent of decrease on an item that originally sold for $40.00 but now sells for $32.00.
20%

6) Compute:

a) -35 ÷ - 7 = **5**
b) -8 + (-3) + 5 = **-6**
c) $(-1)^4$ = **1**
d) 5(2 -9) = **-35**
e) 5 + (-8)(-2) = **21**
f) -33 ÷ - 11 = **3**
g) (-4)(3)(2)(-1) = **24**
h) -6 + (-6) – 6 + (-6) = **-24**

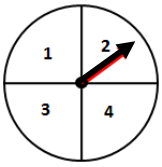
7) The diagram below shows a set of parallel lines being cut by a transversal. If the measure of angle 3 is 60^{o}, list the measures of each of the other numbered angles.
m∠ 2, m∠ 3, m∠ 6, m∠ 7 = 60^{o}
m∠ 1, m∠ 4, m∠ 5, m∠ 8 = 120^{o}



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

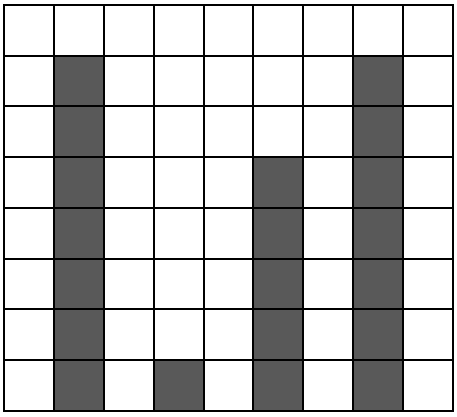
m∠ 1 + m∠ 3 = **180^{o}**
m∠ 5 + m∠ 7 = **180^{o}**
m∠ 1 + m∠ 4 = **240^{o}**
m∠ 1 - m∠ 4 = **0^{o}**
m∠ 2 - m∠ 3 = **0^{o}**
m∠ 5 + m∠ 6 + m∠ 7 + m∠ 8 = **360^{o}**

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



a) The probability of spinning a "4"= **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**

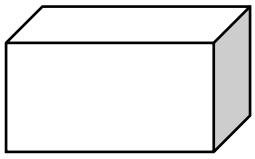
10) One of the shaded squares in the data display below will be chosen at random. What is the probability that the chosen square will come from column C or D?



3/5

11) The <u>volume</u> of the rectangular prism below is 80 in^{3}. Find the length and total surface area.

W = 2 in. H = 5 in.



L = **8 in** TSA = **132 in^{2}**

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

a) 5X – Y = **-7**
b) Y^3 – 3Z = **-42**
c) Z(XYZ) = **150**

13) Solve for the variable shown:

a) 5M – 11 = M + 13 **M = 6**

b) 6(N + 5) = 72 **N = 7**

c) 2P + 4 + 9P = 48 **P = 4**