

1pg GLO7FG

1) Solve the following proportions:

- a) $A/-4 = 22/-8$ **A = 11**
 b) $7/B = 49/14$ **B = 2**
 c) $-12/-60 = C/30$ **C = 6**
 d) $36/60 = 3/D$ **D = 5**

2) Write the ratios of the following:

- a) The number of total days in the months beginning with the letter J to the number of days in the months beginning with the letter M.

92:62 or 46:31

- b) The number of minutes in a quarter of an hour to the number of hours in a half of a day. **15:12 or 5:4**

3) Evaluate the problems below:

- a) What is 15% of 20? **3**
 b) 12 is 25% of what? **48**
 c) What percent of 15 is 5? **33 $\frac{1}{3}$ %**

4) Fill in the chart below

fraction	decimal	percent
$1/3$	0.$\overline{3}$	33 $\frac{1}{3}$%
22/25	0.88	88%
4/1	4.0	400%
$7/7$	1.0	100%
-1/10	-0.1	-10%
9/100	0.09	9%

5) Solve the following:

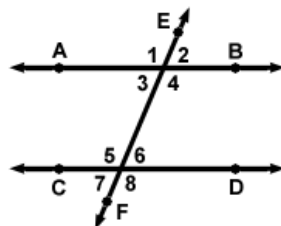
- a) Find the new cost after a 25% discount has been taken off \$36.00
\$27
 b) Compute the total cost a \$60.00 meal plus a 20% tip.
\$72
 c) Total cost of an \$4.00 item after a 7.5% tax is added.
\$4.30
 d) Compute the percent of decrease on an item that now sells for \$30.00 but originally sold for \$40.00. **25%**

6) Compute:

- a) $-24 \div 12 =$ **-2**
 b) $9 + (-9) + 8 =$ **8**
 c) $(-2)^5 =$ **-32**
 d) $5(2 - 10) =$ **-40**
 e) $(-9) + (-6 - 3) =$ **-18**
 f) $70 \div -10 =$ **-7**
 g) $(-4)(-3)(2)(-1) =$ **-24**
 h) $8 + (-7 - 2) =$ **-1**

7) The diagram below shows a set of parallel lines being cut by a transversal. If the measure of angle 4 is 115° , list the measures of each of the other numbered angles.

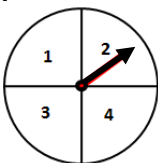
$m\angle 2, m\angle 3, m\angle 6, m\angle 7 = 65^\circ$
 $m\angle 1, m\angle 4, m\angle 5, m\angle 8 = 115^\circ$



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

- $m\angle 5 + m\angle 6 =$ **180°**
 $m\angle 5 + m\angle 7 =$ **180°**
 $m\angle 3 + m\angle 2 =$ **130°**
 $m\angle 1 - m\angle 4 =$ **0°**
 $m\angle 8 - m\angle 5 =$ **0°**
 $m\angle 1 + m\angle 2 + m\angle 3 + m\angle 4 =$ **360°**

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

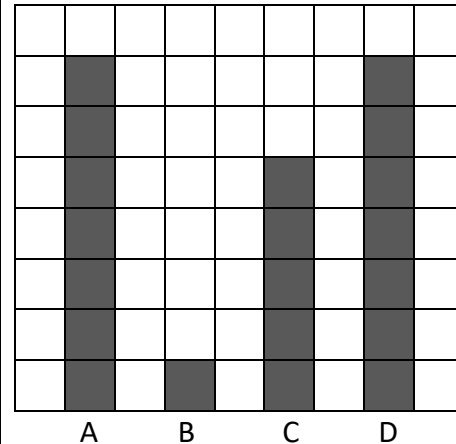


- a) The probability of spinning a number less than 1? **0**
 b) The probability of spinning an odd number = **$\frac{1}{2}$**
 c) The probability of spinning an even number on each of your next 2 spins? **$\frac{1}{4}$**

KEY

Name _____

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 36 in^3 . Find the length and total surface area.

W = 2 in. H = 2 in.



L = **9 in** TSA = **80 in^2**

12) If $X = -1$, $Y = 2$ and $Z = 10$, evaluate the following expressions:

- a) $4X - Y =$ **-6**
 b) $Y^4 - 3Z =$ **-14**
 c) $Y(XYZ) =$ **-40**

13) Solve for the variable shown:

- a) $5M - 3 = M + 37$ **M = 10**
 b) $2(N + 3) = 28$ **N = 11**
 c) $5P + 8 + 2P = 57$ **P = 7**