

1pg GLO7FA

1) Solve the following proportions:

- a) $A / -7 = 88 / -56$ **A = 11**
- b) $12 / B = 132 / 33$ **B = 3**
- c) $-13 / 78 = C / 30$ **C = -5**
- d) $9 / 16 = 3 / D$ **D = 5 1/3**

2) Write the ratios of the following:
31:46

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

b) The number of minutes in a quarter hour to the number of hours in two days. **5:16**

3) Evaluate the problems below:

- a) What is 75% of 36? **27**
- b) 14 is 20% of what? **70**
- c) What percent of 15 is 5? **33 1/3%**

4) Fill in the chart below

fraction	decimal	percent
$7/8$	0.875	87.5%
$951/1000$	0.951	95.1%
$1 2/5$	1.4	140%
$2/3$	0.6	66 2/3%
$- 1/50$	-0.02	-2%
$19/200$.095	9.5%

5) Solve the following:

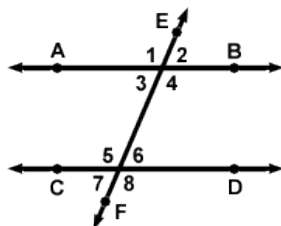
- a) Find the new cost after a 25% discount has been taken off \$52.00
\$39.00
- b) Compute the total cost a \$35.00 meal plus a 20% tip. **\$42.00**
- c) Total cost of an \$8.00 item after a 5.5% tax is added **\$8.44**
- d) Compute the percent of increase on an item that now sells for \$28.00 but originally sold for \$21.00. **33 1/3 %**

6) Compute:

- a) $-24 \div -3 = 8$
- b) $7 + (-3) - 5 = -1$
- c) $(-2)^3 = -8$
- d) $2(6 - 9) = -6$
- e) $(-5) + (-8) + (-2) = -15$
- f) $30 \div -10 = -3$
- g) $(4)(3)(2)(-1) = -24$
- h) $6 + (-6) - 6 + (-6) = -12$

7) The diagram below shows a set of parallel lines being cut by a transversal. If the measure of angle 3 is 75° , list the measures of each of the other numbered angles.

$m\angle 1, m\angle 4, m\angle 5, m\angle 8 = 105^\circ$

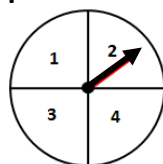


$m\angle 2, m\angle 3, m\angle 6, m\angle 7 = 75^\circ$

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

- $m\angle 5 + m\angle 6 = 180^\circ$
- $m\angle 5 + m\angle 7 = 180^\circ$
- $m\angle 3 + m\angle 2 = 150^\circ$
- $m\angle 1 - m\angle 4 = 0^\circ$
- $m\angle 8 - m\angle 5 = 0^\circ$
- $m\angle 1 + m\angle 2 + m\angle 3 + m\angle 4 = 360^\circ$

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

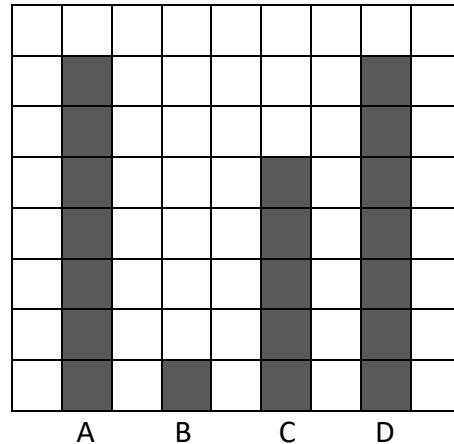


- a) The probability of spinning a "2" = $\frac{1}{4}$
- b) The probability of spinning an even number = $\frac{1}{2}$
- c) The probability of spinning a "1" on each of your next 3 spins? **$1/64$**

KEY

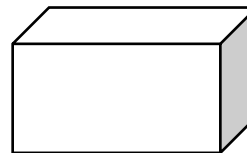
Name _____

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 B? **$2/5$**



11) The volume of the rectangular prism below is 84 in^3 . Find the length and total surface area.

$W = 4 \text{ in.}$ $H = 3 \text{ in.}$



$L = 7 \text{ in}$ $TSA = 122 \text{ in}^2$

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

- a) $4X - Y = 14$
- b) $Y^4 - 3Z = 1$
- c) $Y(XYZ) = 60$

13) Solve for the variable shown:

- a) $7M - 4 = M + 14$ **$M = 3$**
- b) $3(N + 5) = 9$ **$N = -2$**
- c) $P + 6 + 2P = 21$ **$P = 5$**