

1pg GLO7FD

1) Solve the following proportions:

- a) $A/-4 = 77/-28$ **A = 11**
b) $7/B = 63/18$ **B = 2**
c) $-10/-60 = C/30$ **C = 5**
d) $9/45 = 3/D$ **D = 15**

2) Write the ratios of the following:
92:61

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 A.

b) The number of minutes in a half hour to the number of hours in three days. **5:12**

3) Evaluate the problems below:

- a) What is 35% of 80? **28**
b) 14 is 25% of what? **56**
c) What percent of 15 is 10? **66 $\frac{2}{3}$ %**

4) Fill in the chart below

fraction	decimal	percent
$\frac{3}{8}$	0.375	37.5%
$\frac{7}{100}$	0.07	7%
$\frac{2}{1}$	2	200%
$\frac{3}{3}$	1	100%
$-\frac{4}{5}$	-0.8	-80%
$\frac{1}{50}$	0.02	2%

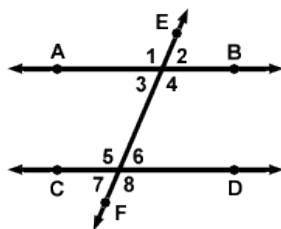
5) Solve the following:

- a) Find the new cost after a 25% discount has been taken off \$32.00
\$24
- b) Compute the total cost a \$45.00 meal plus a 20% tip. **\$54**
- c) Total cost of an \$8.00 item after a 7.5% tax is added. **\$8.60**
- d) Compute the percent of decrease on an item that now sells for \$28.00 but originally sold for \$35.00. **20%**

6) Compute:

- a) $-24 \div 8 = -3$
b) $9 + (-3) + 4 = 10$
c) $(-2)^4 = 16$
d) $4(6 - 10) = -16$
e) $(-5) + (-6 - 3) = -14$
f) $60 \div -10 = -6$
g) $(-4)(3)(2)(-1) = 24$
h) $8 + (-7) - 5 = -4$

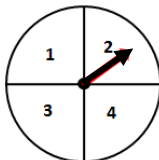
7) The diagram below shows a set of parallel lines being cut by a transversal. If the measure of angle 4 is 110° , list the measures of each of the other numbered angles.

$$m\angle 1, m\angle 4, m\angle 5, m\angle 8 = 110^\circ$$

$$m\angle 2, m\angle 3, m\angle 6, m\angle 7 = 70^\circ$$

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

$$\begin{aligned} m\angle 5 + m\angle 6 &= \mathbf{180^\circ} \\ m\angle 5 + m\angle 7 &= \mathbf{180^\circ} \\ m\angle 3 + m\angle 2 &= \mathbf{140^\circ} \\ m\angle 1 - m\angle 4 &= \mathbf{0^\circ} \\ m\angle 8 - m\angle 5 &= \mathbf{0^\circ} \\ m\angle 1 + m\angle 2 + m\angle 3 + m\angle 4 &= \mathbf{360^\circ} \end{aligned}$$

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



- a)** The probability of spinning a “1” = $\frac{1}{4}$
- b)** The probability of spinning an odd number = $\frac{1}{2}$
- c)** The probability of spinning a “1” on each of your next 2 spins? $\frac{1}{16}$

KEY

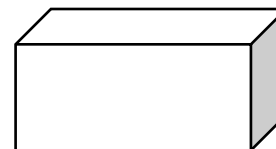
Name

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 C or D? $\frac{3}{5}$

	A	B	C	D
1	Shaded			Shaded
2	Shaded			Shaded
3	Shaded		Shaded	Shaded
4	Shaded		Shaded	Shaded
5	Shaded		Shaded	Shaded
6	Shaded		Shaded	Shaded
7	Shaded		Shaded	Shaded
8	Shaded	Shaded	Shaded	Shaded

11) The volume of the rectangular prism below is 63 in^3 . Find the length and total surface area.

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



L = 7 in. TSA = 102 in²

**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) $6M + 8 = M + 43$ **$M = 7$**
- b) $2(N + 3) = 22$ **$N = 8$**
- c) $5P + 8 + P = 32$ **$P = 4$**