

Name: Key Class: _____ Date: _____

Word Problems → ___/10

1) The Royals softball team played 75 games and won 55 of them. What percent of the games did they lose? (Round to the nearest tenth if necessary).

$$\begin{aligned} \% &= \frac{P}{W} \times 100\% \\ &= \frac{20}{75} \times 100\% \\ &= 26.7\% \end{aligned}$$

Assume
lose = All - wins
= 75 - 55
= 20

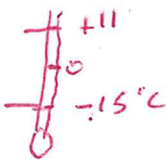
∴ The Royals lost 26.7% of their games.

2) A stock gained 2 points on Monday, lost 5 points on Tuesday, lost 1 point on Wednesday, gained 4 points on Thursday, and lost 6 points on Friday. How much was the gain or loss?

$$+2 + (-5) + (-1) + 4 - 6 = -6 + 6 = 0$$

The stock remained the same from Monday to Friday.

3) The temperature in Montreal was -15°C . In New York the temperature was $+11^{\circ}\text{C}$. How many degrees warmer was the temperature in New York?



$$15^{\circ} + 11^{\circ} = 26^{\circ}$$

∴ There are 26° warmer than New York.

4) In one particular suburb, there are 9 families that own a bulldog. If these owners make up 36.8% of all dog owners in this suburb, then how many dog owners are there in this neighborhood? (Round to the nearest whole number if necessary).



$$\begin{aligned} W &= \frac{P}{d} \\ &= \frac{9 \text{ fam}}{.368} \\ &= 24.5 \text{ families} \end{aligned}$$

∴ There are about 24.5 families that are dog owners.

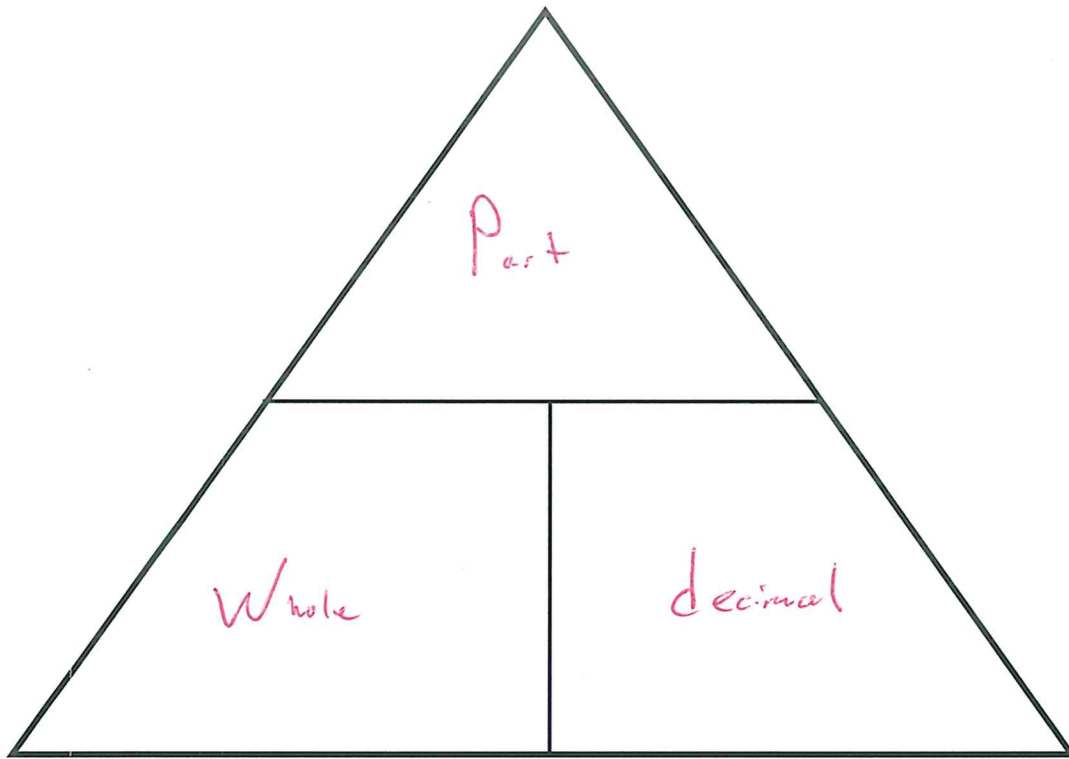
5) Mike decided to look at new and used cars. Mike found a used car for \$28,000. Mike found that he paid 70.0% of the price of a new car. How much would a new car cost? (Round to the nearest whole number if necessary).



$$\begin{aligned} W &= \frac{P}{d} \\ &= \frac{\$28000}{.7} \\ &= \$40000 \end{aligned}$$

∴ The new car would cost \$40,000.

Label This Triangle → ___/3



Matching → ___/5

- | | |
|----------------------|--------------------|
| 1. Opposite Integers | _____ (-6), -17 |
| 2. Sign | _____ $\sqrt{5}$ |
| 3. Negative Integers | _____ (+11), (-11) |
| 4. Positive Integers | _____ -3 |
| 5. Irrational Number | _____ 19, (+45) |
- Note: Red lines indicate the following matches: 1 to 4, 2 to 5, 3 to 2, and 5 to 1.*

Complete The Tables → ___/7

Order each set of integers in order from SMALLEST to LARGEST.	
+12, -12, 11, -10, 0	-12, -10, 0, 11, 12
(+3), 24, +17, -2	-2, 3, 17, 24
(-10), $\frac{1}{2}$, (-20), $-\frac{1}{2}$, 0	-20, -10, $-\frac{1}{2}$, 0, $\frac{1}{2}$
+99, -124, $+4^4$, $\sqrt{144}$, 11	-124, 11, $\sqrt{144}$, +99, 4^4
$(-3)^3$, $\sqrt{81}$, -9, (+999), 0	$(-3)^3$, -9, 0, $\sqrt{81}$, (+999)

Scientific Notation → ___/5

Fill in the values for the following table using Scientific Notation and standard notation rules.

Standard Notation	Scientific Notation
326000	3.26×10^5
0.000478	4.78×10^{-4}
2.831	2.831×10^0
726,070,000	7.2607×10^8
25,600,000	2.56×10^7

Integers $\rightarrow$ ___/10

Please show all of your work/steps.

$$1. (+12) + (+12) = +24$$

$$2. (-4) + (-9) = -13$$

$$\begin{aligned} 3. (-100) - 100 &= \\ &= (-100) + (-100) \\ &= -200 \end{aligned}$$

$$\begin{aligned} 4. -(4^2) - (+\sqrt{64}) &= \\ &= -(4 \times 4) - (+8) \\ &= -16 + (-8) \\ &= -24 \end{aligned}$$

$$\begin{aligned} 5. (-100) - (-100) &= \\ &= -100 + +100 \\ &= 0 \end{aligned}$$

$$\begin{aligned} 6. (-4^2) - (-\sqrt{64}) &= \\ &= (-4 \times -4) - (-8) \\ &= 16 + 8 \\ &= 24 \end{aligned}$$

$$7. +250 \div (-10) = -25$$

$$8. (-5) \times (-22) = +110$$

$$9. -9 \times 9 = -81$$

$$10. -360 \div 90 = -4$$