

Name: *key*

AM I READY FOR THE UNIT 1 TEST?

Objective: Number Systems

Natural/Counting examples: *1, 2, 3, 4, 5, 6, ...*

Whole Number examples: *0, 1, 2, 3, 4, 5, ...*

Integer Examples: *... -2, -1, 0, 1, 2, ...*

Rational Examples: *fractions $\frac{a}{b}$*

Irrational Examples: *can't convert to a fraction*

Number	Counting Number	Whole Number	Integer	Rational Number	Irrational Number
5	✓	✓	✓	✓	
0.4				✓	
$\sqrt{64}$	✓	✓	✓	✓	
$-2\frac{2}{3}$				✓	
$\sqrt{27}$					✓

Objective: Order of Operations

Remember: **PEMDAS**

A. $2[(10 \div 2) - 3]$

$2[5 - 3]$

4

B. $18 \div 9 + 4 \times 3$

$9 + 12$
 21

Objective: Solve Multiple Step Equations

Remember: **COMBINE LIKE TERMS!**

A. $-5(x - 2) + 4x = 12$

$-5x + 10 + 4x = 12$

$-1x + 10 = 12$

$-1x = 2$

$x = -2$

B. $3x - 2x + 12 = 4(x - 4)$

$1x + 12 = 4x - 16$

$28 = 3x$

$\frac{28}{3} = x$

Objective: Ratio and ProportionsRemember: **CROSS MULTIPLY**

A. $\frac{x}{4} = \frac{3}{12}$

$12x = 12$

$x = 1$

B. $\frac{x-2}{-1} = \frac{3}{2}$

$2(x-2) = -3$

$2x - 4 = -3$

$2x = 1$

$x = \frac{1}{2}$

Objective: Percents $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$

REMEMBER: IS OVER OF = % OVER 100

A. What number is 12% of 82?

$\frac{x}{82} = \frac{12}{100}$

$100x = 984$

$x = 9.84$

B. 15 is what percent of 60?

$\frac{15}{60} = \frac{x}{100}$

$1500 = 60x$

$25 = x$

Objective: Literal EquationsA. Solve for y: $-14x - 2y = 26$

$$\begin{array}{r} +14x \qquad +14x \\ \hline -2y = 14x + 26 \\ \hline -2 \qquad -2 \end{array}$$

$y = -7x - 13$

B. Solve for y: $15x + 3y = 21$ **Objective: Word Problems**

You purchase a iPhone for \$600 and purchase a cell phone plan. The plan costs \$50 dollars a month. If you have \$1000 in your savings account, how many months can you afford to have a cell phone?

$600 + 50m = 1000$

$50m = 400$

$m = 8$

8 months