Honors Algebra 1 Name_____ ID: 1

Pre-Algebra PRACTICE Test (Chapters 1-3)

Date_____ Period____

Instructions: Show work clearly. Circle final answer.
NO CALCULATOR ALLOWED.

Write each as an algebraic expression. The the variable "n" to describe the number. Do NOT evaluate. (2 points each)

1) the difference of m and 9

$m - 9$

2) the quotient of q and 4 is 12

$\frac{q}{4} = 12$

3) v cubed is greater than 10

$v^3 > 10$

Evaluate each expression. (2 points each) CLEARLY SHOW WORK

4) $-12 \div ((5 - 8) \cdot -1)$

-4

$-12 \div (-3 \cdot -1) =$
$-12 \div 3 =$
-4

Go Down

5) $(3 + 2 - (-9 + 4)) \div 5$

2

order of ops
1) ()'s IN → OUT
2) EXPONENTS
3) ×, ÷ L → R
4) +, − L → R

Evaluate each using the values given. (4 points each)

6) $y - 5z \div 5$; use $y = 5$, and $z = -1$

Shows substitution (USE ()'s FOR −#'s)

6

$5 - 5(-1) \div 5 =$
$5 + 5 \div 5 =$
$5 + 1 = 6$

Evaluate each expression. (2 points each)

7) $(-8) + 2 + (-4) - (-4)$

$-12 + 6 =$
-6

Tip
Add −#'s
the +#'s

8) $-5 \cdot -2 \cdot 2 \cdot -10$

−200

Rule
① MULT ODD # OF −'s → ANSWER −#
② MULT EVEN # OF −'s → ANSWER +#

9) $\frac{16}{0}$

undefined

10) $\pm\sqrt{400}$

±20 OR 20, −20

11) $|-4 \times 3|$

Do inside || 1ST

$|-12| = 12$

Variable term is 1ST AND THE CONSTANT IS LAST

Simplify each expression. Write in standard form with the variable term first and the constant last. (4 points each)

12) $7(x-4)-2(8x-2)$

$7x-28-16x+4=$

$-9x-24$

13) $-2-(1-7n)-9n$

$-2n-3$

$-2-1+7N-9N$

$-2N-3$

Solve each equation. And Check. (6 points each)

14) $-29-4n=n+6(6n+2)$

x=-1; C: -25=-25

$-29-4N=N+36N+12$

$-4N-29=37N+12$

$+4N \quad +4N$

$-29=41N+12$

$-12 \quad -12$

$\frac{-41}{41}=\frac{41N}{41}$

$N=-1$

C: $-29-4(-1)=-1+6(6(-1)+2)$

$-29+4=-1-24$

$-25=-25$ ✓

15) $-4(x-4)-x=-4(3x-4)$

0; x=0; C: 16=16

$-4x+16-x=-12x+16$

$-5x+16=-12x+16$

$+12x \quad +12x$

$7x+16=16$

$-16 \quad -16$

$\frac{7x}{7}=\frac{0}{7}$

$x=0$

C: $-4(0-4)-0=-4(3(0)-4)$

$16=-4(-4)$

$16=16$ ✓

16) $3n+7-3n=-5(6-4n)-4(5n+3)$

No solution.

$7=-30+20N-20N-12$

$7\neq -42$ ← show this step!

No solution — Variables drop out AND THE CONSTANTS ARE NOT EQUAL

17) $-6(-x+6)-8x=-6(x+4)$

x=3; C: -42=-42

$6x-36-8x=-6x-24$

$-2x-36=-6x-24$

$+6x \quad +6x$

$4x-36=-24$

$+36 \quad +36$

$\frac{4x}{4}=\frac{12}{4}$

$x=3$

C: $-6(-3+6)-8(3)=-6(3+4)$

$-6(3)-24=-42$

$-42=-42$ ✓

ALL REAL #'S Variables drop out AND THE CONSTANTS ARE EQUAL