**Name** _____

## Algebra I Practice Quiz 2.1-2.4

**Solve each equation. Circle your answer.**

1. $x-(-6)=13$

$x+6=13$
$-6 \quad -6$
$x=7$

2. $-14=7-y$

$-7 \quad -7$
$-21=-y$
$21=y$

3. $\frac{n}{-5}33=n$

$(-5)\frac{n}{-5}=33(-5)$
$n=-165$

4. $17-(4n-5)=9n-3(n+7)$

$17-4n+5=9n-3n-21$
$-4n+22=6n-21$
$+21 \quad +21$
$-4n+43=6n$
$+4n \quad +4n$
$43=10n$
$\frac{43}{10}=\frac{10n}{10}$
$\frac{43}{10}=n$

5. $-12=2x-6(x+8)$

$-12=2x-6x-48$
$-12=-4x-48$
$+48 \quad +48$
$36=-4x$
$\frac{36}{-4}=\frac{-4x}{-4}$
$-9=x$

6. $\frac{-3}{8}h=-7$

$(\frac{8}{-3})\frac{-3}{8}h=-7(\frac{8}{-3})$
$h=\frac{-56}{-3}$
$h=\frac{56}{3}$

7. $\frac{x+5}{-3}=6(-3)$

$x+5=-18$
$-5 \quad -5$
$x=-23$

8. $23=5y-3$

$+3 \quad +3$
$26=5y$
$\frac{26}{5}=\frac{5y}{5}$
$\frac{26}{5}=y$

9. $-3x+5=14$

$-5 \quad -5$

$-3x = 9$

$\frac{-3x}{-3} = \frac{9}{-3}$

$x = -3$

10. $-6k = 45$

$\frac{-6k}{-6} = \frac{45}{-6}$

$k = \frac{-15}{2}$

11. $\left(5\right)\frac{7}{13} = \frac{r}{5}\left(5\right)$

$\frac{35}{13} = r$

12. $\frac{n}{2} - 7 = -4$

$+7 \quad +7$

$2\left(\frac{n}{2}\right) = 3 \cdot 2$

$n = 6$

13. $-17 + x = 4$

$+17 \quad +17$

$x = 21$

14. $8 - 2p = 3p + 16$

$+2p \quad +2p$

$8 = 5p + 16$

$-16 \quad -16$

$\frac{-8}{5} = \frac{5p}{5}$

$-\frac{8}{5} = p$

15. $4(x-2) = 4x - 8$

$4x - 8 = 4x - 8$

$+8 \quad +8$

$4x = 4x$

all real #s

16. $\left(\frac{1}{3}x - \frac{3}{4} = \frac{5}{6}x + 2\right)12$

$\frac{12x}{3} - \frac{36}{4} = \frac{60x}{6} + 24$

$4x - 9 = 10x + 24$

$+9 \quad +9$

$4x = 10x + 33$

$-10x \quad -10x$

$\frac{-6x}{-6} = \frac{33}{-6}$

$x = -\frac{11}{2}$

17. $\frac{7}{9}x - \frac{13}{6} = \frac{7}{2}x + \frac{5}{9}$ (18)

$14x - 39 = 63x + 10$

$+39 \quad +39$

$14x = 63x + 49$

$-63x \quad -63x$

$-49x = 49$

$x = -1$

18. $3(2x-5) - 4x = 2(x-3) - 12$

$6x - 15 - 4x = 2x - 6 - 12$

$2x - 15 = 2x - 18$

$-15 \quad -15$

$2x = 2x - 3$

$-2x \quad -2x$

$0 = -3$

No Solution

19. $5 - 2(x-1) = 6 - x$

$5 - 2x + 2 = 6 - x$

$2x \quad 2x$

$7 = 6 + x$

$-6 \quad -6$

$1 = x$

20. $-15 + 3x = 6x - 39$

$-3x \quad -3x$

$-15 = 3x - 39$

$+39 \quad +39$

$24 = 3x$

$8 = x$

**Define the variable, write an equation, solve the equation and answer the question.**

21. Find three consecutive integers whose sum is 48.

Let $x$ = 1ST CONS.

$x+1$ = 2ND

$x+2$ = 3RD

$(x) + (x+1) + (x+2) = 48$

$3x + 3 = 48$

$3x = 45$

$x = 15$

15, 16, 17

22. Find three consecutive even integers whose sum is 36.

Let $x$ = 1ST even

$x+2$ = 2ND

$x+4$ = 3RD

$(x) + (x+2) + (x+4) = 36$

$3x + 6 = 36$

$3x = 30$

$x = 10$

10, 12, 14