Algebra 1
Ch 1 Station Review

Name: Key
Date: _____ Hour: _____

Learning Target Self Evaluation

Rate your level of understanding with the scale below before beginning the review activity. After completing the review activity, rate your level of understanding again. This will help identify any learning targets that need to be re-looked at before the assessment, which is next class.

1 = Need Help! 2 = Kind Of! 3 = Almost! 4 = Got It!

Section	Learning Target	Rating Before Activity	Rating After Activity
1.4	I can solve absolute value equations	1 2 3 4	1 2 3 4
	I can solve equations involving two absolute values	1 2 3 4	1 2 3 4
	I can identify special solutions of absolute value equations	1 2 3 4	1 2 3 4
1.5	I can rewrite literal equations	1 2 3 4	1 2 3 4
	I can rewrite and use formulas for area	1 2 3 4	1 2 3 4
	I can rewrite and use other common formulas	1 2 3 4	1 2 3 4

*Note: reformatted to give more space after it was keyed!

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Station 1 - Section 1.4

I can solve absolute value equations.

1) $|x| = 13, -13$

2) $q - 8 = 14$ $\quad +8 \quad +8$ $\quad q = 22$

$q - 8 = -14$ $\quad +8 \quad +8$ $\quad q = -6$

3) $\frac{t}{2} = 6 \cdot 2$ $\quad t = 12$

$\frac{t}{2} = -6 \cdot 2$ $\quad t = -12$

4) $9|4p+2| + 8 = 35$ $\quad -8 \quad -8$

$\frac{9|4p+2|}{9} = \frac{27}{9}$

$|4p+2| = 3$

$4p + 2 = 3$ $\quad -2 \quad -2$

$\frac{4p}{4} = \frac{1}{4}$ $\quad p = 1/4$

$4p + 2 = -3$ $\quad -2 \quad -2$

$\frac{4p}{4} = \frac{-5}{4}$ $\quad p = -5/4$

Station 2 - Section 1.4

I can solve equations involving two absolute values.

1) $2x + 8 = 10x$ $\quad -2x \quad -2x$

$\frac{8}{8} = \frac{8x}{8}$ $\quad 1 = x$

$2x + 8 = -(10x)$ $\quad -2x \quad -2x$

$\frac{8}{-12} = \frac{-12x}{-12}$ $\quad -2/3 = x$

2) $3k - 2 = 2(k+2)$

$3k - 2 = 2k + 4$ $\quad -2k \quad -2k$

$k - 2 = 4$ $\quad +2 \quad +2$

$k = 6$

$3k - 2 = -2(k+2)$

$3k - 2 = -2k - 4$ $\quad +2k \quad +2k$

$5k - 2 = -4$ $\quad +2 \quad +2$

$\frac{5k}{5} = \frac{-2}{5}$ $\quad k = -2/5$

3) $2(4w-1) = 3(4w+2)$

$8w - 2 = 12w + 6$ $\quad -8w \quad -8w$

$-2 = 4w + 6$ $\quad -6 \quad -6$

$-8 = 4w$

$-2 = w$

$2(4w-1) = -3(4w+2)$

$8w - 2 = -12w - 6$

$20w = -4$

$w = -4/20$

$w = -1/5$

4) $6a - 5 = 4a$ $\quad -5 = -2a$

$5/2 = a$

$6a - 5 = -4a$ $\quad -5 = -10a$

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

Station 3 - *I can identify special solutions of absolute value equations.*

1) $3x - 4 = 3x - 5$ $\quad -4 = -5$ $\quad$ No solution

$3x - 4 = -(3x - 5)$

$3x - 4 = -3x + 5$

$6x = 9$

$x = 9/6$

$x = 3/2$

2)

No solution	One solution	Two solutions
$\|x-2\|+6=0$	$\|x-1\|+4=4$	$\|x+8\|+2=7$
$\|x-6\|-5=-9$	$\|x+5\|-8=-8$	$\|x+3\|-1=0$

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Station 4 - Section 1.5

I can rewrite literal equations.

1) $20x+5y=15$
$-20x \quad -20x$
$\frac{5y}{5} = \frac{-20x+15}{5} \quad \frac{}{5}$
$\boxed{y=-4x+3}$

2) $16x+9=9y-2x$
$+2x \quad +2x$
$\frac{18x+9}{9} = \frac{9y}{9}$
$\boxed{2x+1=y}$

3) $m=10x-x$
$\frac{m}{9} = \frac{9x}{9}$
$\boxed{\frac{m}{9}=x}$

4) $z=8+6x-px$
$-8 \quad -8$
$z-8=6x-px$
$\frac{z-8}{6-p} = \frac{x(6-p)}{6-p}$
$\boxed{\frac{z-8}{6-p}=x}$

5) $x-9+2wx=y$
$+9 \quad +9$
$x+2wx=y+9$
$\frac{x(1+2w)}{1+2w} = \frac{y+9}{1+2w}$
$\boxed{x=\frac{y+9}{1+2w}}$

6) $11-\frac{1}{2}y=3+6x$
$-11 \quad -11$
$-2 \quad -\frac{1}{2}y=(-8+6x)-2$
$\boxed{y=16-12x}$

Station 5 - *I can rewrite and use formulas for area.*

1) a) $3 \cdot V=\frac{1}{3}Bh \cdot 3$
$\frac{3V}{B} = \frac{Bh}{B}$
$\frac{3V}{B}=h$

b) $h=\frac{3(216)}{36}=\boxed{18cm}$

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Station 6 - Section 1.5

I can rewrite and use other common formulas.

1) a) $\frac{5}{9}F = \frac{9}{5}(K - 273.15) \cdot \frac{5}{9}$

$\frac{5}{9}F = K - 273.15$
$+273.15 \quad +273.15$

$\boxed{\frac{5}{9}F + 273.15 = K}$

b) $\frac{5}{9}(180) + 273.15 = \boxed{373.15 \text{ Kelvin}}$

2) $y = mx + b$
$-b \quad -b$

$\frac{y - b}{x} = \frac{mx}{x}$

$\boxed{\frac{y-b}{x} = m}$