Module 0a: Algebra Review

Math Practice(s):

-Attend to precision

-Look for & express regularity in repeated reasoning

Learning Target(s):

What is the process for solving a linear equation?

Homework:

HW #1: 0a #1-9

Aug 8-12:20 PM

erase to show

Solving Linear Equations

1. Use the distributive property to clear any grouping symbols. ( ) [ ] { }
2. Use the addition and subtraction properties of equality to get all terms containing the variable on one side of the equation and all other terms on the other side, combining like terms along the way.
3. Use the multiplication and division property of equality to isolate the variable.
4. Check the solution by substituting into the original equation.

Solve the equation.

1. $(2x)+(4x)=90$

$\frac{6x}{6}=\frac{90}{6}$

$x=15$

2. $(4x+5)+(3x+8)=90$

$7x+13=90$

$-13 \quad -13$

$\frac{7x}{7}=\frac{77}{7}$

$x=11$

3. $(2x)+(5x+5)=180$

$7x+5=180$

$-5 \quad -5$

$\frac{7x}{7}=\frac{175}{7}$

$x=25$

4. $(x+8)+(x-3)+(45)=180$

$2x+50=180$

$-50 \quad -50$

$\frac{2x}{2}=\frac{130}{2}$

$x=65$

$\angle$:

$73+62+45=180$

$135+45=180$

$180=180$ ✓

5. $(2x-8)+(3x-12)=60$

$5x-20=60$

$+20 \quad +20$

$\frac{5x}{5}=\frac{80}{5}$

$x=16$

6. $4x-2=5x+10$

$-4x \quad -4x$

$-10 \quad -10$

$-12=1x$

$x=-12$

7. $5x-25=3x+5$

$-5x \quad -5x$

$-5 \quad -5$

$\frac{-30}{-2}=\frac{-2x}{-2}$

$x=15$

8. $5x-25=3x+5$

$-3x \quad -3x$

$+25 \quad +25$

$\frac{2x}{2}=\frac{30}{2}$

$x=15$

9. $3x+1=5x-1$

$-3x \quad -3x$

$+1 \quad +1$

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

$x=1$

10. $(28)+2(2x-2)=6x$

$28+4x-4=6x$

$-4x \quad -4x$

$\frac{24}{2}=\frac{2x}{2}$

$12=x$

$x=12$