

SWBAT simplify expressions using order of operations.

Simplify each expression. Show all work to receive full credit.

1.  $5(3^2 - 7)$

$$5(9-7)$$

$$5(2)$$

$$\boxed{10}$$

2.  $8 + [2(4 \div 8)]$

$$8 + [2(-4)]$$

$$8 + [-8]$$

$$\boxed{0}$$

3.  $6 \cdot 4 - 9 \div 3$

$$24 - 3$$

$$\boxed{21}$$

4.  $24 \div (8 - 5 \cdot 2)$

$$24 \div (8 - 10)$$

$$24 \div (-2)$$

$$\boxed{-12}$$

5.  $2[6 \div 3 + (-1)^2]$

$$2[2+1]$$

$$2 \cdot [3]$$

$$\boxed{6}$$

7.  $2^3 + (5x + 2x)$

$$8 + 7x$$

SWBAT solve multi-step linear equations.

Solve each equation. Show all work to receive full credit.

8.  $9x = 8 + 3x$

$$6x = 8$$

$$x = \frac{8}{6} = \frac{4}{3}$$

9.  $3x - (x + 8) = 0$

$$3x - x - 8 = 0$$

$$2x - 8 = 0$$

$$2x = 8$$

$$\boxed{x = 4}$$

10.  $-9(4x + 6) = 18$

$$-36x - 54 = 18$$

$$+54 +54$$

$$-36x = 72$$

$$\frac{-36x}{-36} = \frac{72}{-36}$$

$$\boxed{x = -2}$$

11.  $5 + 2(3x - 1) = 9$

$$5 + 6x - 2 = 9$$

$$3 + 6x = 9$$

$$6x = 6$$

$$\boxed{x = 1}$$

12.  $\frac{x}{5} + 4 = -1$

$$8 \cdot \frac{x}{8} = -5 \cdot 5$$

$$\boxed{x = -25}$$

13.  $6x + 2 = 3x - 1$

$$-3x + 2 = 3x - 2$$

$$3x = -3$$

$$\boxed{x = -1}$$

14.  $-3\left(x - \frac{1}{3}\right) = -3$

$$-3x + 1 = -3$$

$$-3x = -4$$

$$\boxed{x = \frac{4}{3}}$$

15.  $2x - 4(2x - 5) = -10$

$$2x - 8x + 20 = -10$$

$$-6x + 20 = -10$$

$$-6x = -30$$

$$\boxed{x = 5}$$

16.  $12x + 40 + 3x + 50 = 180$

$$15x + 90 = 180$$

$$15x = 90$$

$$\boxed{x = 6}$$