

Solving DAY 2

Name: Key

Simplify each expression.

$$\textcircled{1} \quad (x+2)(x-4) - x^2 + 8$$

$$x^2 - 4x + 2x - 8 - x^2 + 8 \quad \textcircled{-2x}$$

$$\textcircled{2} \quad 8xy + 3x^2y - 4x^2y + 2xy + 3y$$

$$\boxed{10xy - x^2y + 3y}$$

Solve each.

$$\textcircled{3} \quad 2(5x-1) + 3 = 4(2x-3) + 2x$$

$$10x - 2 + 3 = 8x - 12 + 2x$$

$$10x + 1 - 10x - 12$$

$$1 = -12 \quad \textcircled{\text{No Sol}}$$

$$\textcircled{4} \quad (x-1)(x+4) = x^2 - 3x$$

$$x^2 + 4x - 1x - 4 = x^2 - 3x \quad \textcircled{x = 2/3}$$

$$3x - 4 = -3x$$

$$\frac{-4}{-6} = \frac{-6x}{-6}$$

$$\textcircled{5} \quad \frac{4x}{4} - \frac{3x}{5} = 7$$

$$\therefore x - \frac{12x}{5} = 28$$

$$5x - 12x = 140$$

$$-7x = 140$$

$$\boxed{x = -20}$$

$$\textcircled{7} \quad 50x + 40 = 1000$$

$$5x + 4 = 100$$

$$5x = 96$$

$$\boxed{x = 19.2}$$

$$\textcircled{8} \quad (x-8)^2 + 1 = 145$$

$$(x-8)^2 = 144$$

12 or -12

$$x-8=12$$

$$\boxed{x=20}$$

$$x-8=-12$$

$$\boxed{x=-4}$$

$$\textcircled{9} \quad \sqrt{\frac{1}{2}x-8} = 2$$

$$\frac{1}{2}x - 8 = 4$$

$$\frac{1}{2}x = 12$$

$$\boxed{x=24}$$

$$\textcircled{6} \quad \frac{3x}{5} = \frac{1}{8}$$

$$24x = 5$$

$$\boxed{x = \frac{5}{24}}$$

$$\textcircled{10} \quad (9x-1)^3 = 27$$

$$= 3$$

$$9x - 1 = 3$$

$$9x = 4$$

$$\boxed{x = \frac{4}{9}}$$