Principles of Algebra Name/Date Clee / Today

ALL PROBLEMS CAN BE COMPLETED ON THIS WORKSHEET

WS 6E.1 – Solving for y

Solve each equation for y.

1. $3x + 7y = 35$

$-3x \quad -3x$

$\frac{7y}{7} = \frac{-3x}{7} + \frac{35}{7}$

$\boxed{y = -\frac{3}{7}x + 5}$

2. $9y + 6x = 54$

$-6x \quad -6x$

$\frac{9y}{9} = \frac{-6x}{9} + \frac{54}{9}$

$\boxed{y = -\frac{2}{3}x + 6}$

3. $x - y = 4$

$-x \quad -x$

$\frac{-y}{-1} = \frac{-x}{-1} + \frac{4}{-1}$

$\boxed{y = x - 4}$

4. $\frac{5y}{5} = \frac{2x}{5}$

$\boxed{y = \frac{2}{5}x}$

5. $6x - 3y = -24$

$-6x \quad -6x$

$\frac{-3y}{-3} = \frac{-6x}{-3} - \frac{24}{-3}$

$\boxed{y = 2x + 8}$

6. $-9 = 2y - 7x$

$+7x \quad +7x$

$\frac{7x}{2} - \frac{9}{2} = \frac{2y}{2}$

$\boxed{y = \frac{7}{2}x - \frac{9}{2}}$

7. $\frac{5y}{4} - \frac{x}{2} = \frac{2}{3}$ $\quad \cdot 12 \quad \cdot 12 \quad \cdot 12$

$15y - 6x = 8$

$+6x \quad +6x$

$\frac{15y}{15} = \frac{6x}{15} + \frac{8}{15} \Rightarrow \boxed{y = \frac{3}{5}x + \frac{8}{15}}$

8. $\frac{x}{5} + \frac{2y}{3} = \frac{4}{3}$ $\quad \cdot 15 \quad \cdot 15 \quad \cdot 15$

$3x + 10y = 20$

$-3x \quad -3x$

$\frac{10y}{10} = \frac{-3x}{10} + \frac{20}{10}$

$\boxed{y = -\frac{3}{10}x + 2}$