Solving DAY 1 Name Key

Simplify each expression.

① $x^2 - 5x + 4 - 6x^2 + 3(2x+8)$

$-5x^2 + x + 28$

② $a^2b + ab^2 - 3ab - 5a^2b + 10ab$

$-4a^2b + ab^2 + 7ab$

Solve for x.

③ $3x - 5 = 6x + 12$

$-12 \quad -12$

$3x - 17 = 6x$

$-17 = 3x$

$x = \frac{-17}{3}$

④ $-2(x-3) = 6x$

$-2x + 6 = 6x$

$6 = 8x$

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

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

⑤ $\frac{x}{4} + 10 = 18$

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

$x = 32$

⑥ $\sqrt{3x-1} = 8$

$\sqrt{64} = 8$

$3x - 1 = 64$

$3x = 65$

$x = 21.\overline{66}$

→

⑦ $\frac{(6x+5)}{3} = 6$

$6x+5=18$

$6x=13$

$x=13/6$

⑧ $(3x+4)^2 - 1 = 8$

$3^2 = 9$ $\quad (3x+4)^2 = 9$

$3x+4=3$

$3x=-1$

$x=-1/3$

⑨ $\left|\frac{1}{4}x+9\right| = 10$

$\frac{1}{4}x+9=10$

$\frac{1}{4}x=1$ $\quad x=4$

$|10| = 10$

$|-10| = 10$

$\frac{1}{4}x+9=-10$

$\frac{1}{4}x=-19$ $\quad x=-76$

⑩ $\frac{3x}{5} - 13 = -10$

$+13 \quad +13$

$\frac{3x}{5} = 3$

$3x=15$

$x=5$

~~A~~. Solve #10 two different ways!

(3) $\frac{3x}{5} - 13 = -10$ $\quad (5) \quad (5)$

$3x - 65 = -50$

$3x=15$

$x=5$