Name: Key Date: _____

Solving Simple Linear Equations – A Review
Algebra 1 Homework

Skills

1. Which of the following values of x is a solution to the equation $2x+7=1$?

   (1) $x=3$ (3) $x=-3$

   (2) $x=4$ (4) $x=-4$

$-7 \quad -7$

$\frac{2x}{2} = \frac{-6}{2}$

$x=-3$

(3)

2. Which of the following values of x satisfies $\frac{4}{5}x-2=10$?

   (1) $x=15$ (3) $x=10$

   (2) $x=-7$ (4) $x=-2$

$+2 \quad +2$

$\left(\frac{5}{4}\right)\frac{4}{5}x = 12\left(\frac{5}{4}\right)$

$x=15$

(1)

3. Solve each of the following two-step linear equations for the value of x. Make sure to list the properties that you used to solve these equations.

(a) $3x+5=35$

$-5 \quad -5$ S.P.O.E

$\frac{3x}{3} = \frac{30}{3}$ D.P.O.E

$x=10$

(b) $4x-1=15$

$+1 \quad +1$ A.P.O.E

$\frac{4x}{4} = \frac{16}{4}$ D.P.O.E

$x=4$

(c) $55=6x+7$

$-7 \quad -7$ S.P.O.E

$\frac{48}{6} = \frac{6x}{6}$ D.P.O.E

$x=8$

(d) $\frac{3}{8}x-3=9$

$+3 \quad +3$ A.P.O.E

$\left(\frac{8}{3}\right)\frac{3}{8}x = 12\left(\frac{8}{3}\right)$ M.P.O.E

$x=32$

(e) $7=\frac{3}{4}x+19$

$-19 \quad -19$ S.P.O.E

$\left(\frac{4}{3}\right)-12 = \frac{3}{4}x\left(\frac{4}{3}\right)$ M.P.O.E

$-16=x$

$x=-16$

(f) $\frac{x}{3}-4=5$

$+4 \quad +4$ A.P.O.E

$(3)\frac{x}{3} = 9(3)$ M.P.O.E

$x=27$

(g) $3=\frac{10}{3}x-12$

$+12 \quad +12$ A.P.O.E

$\left(\frac{3}{10}\right)15 = \frac{10}{3}x\left(\frac{3}{10}\right)$ M.P.O.E

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

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

(h) $14=12x+8$

$-8 \quad -8$ S.P.O.E

$\frac{6}{12} = \frac{12x}{12}$ D.P.O.E

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

(i) $0.12x+1.56=0.66$

$-1.56 \quad -1.56$ S.P.O.E

$\frac{.12x}{.12} = \frac{-0.9}{.12}$ D.P.O.E

$x=-7\frac{1}{2}$

(j) $-2.35x+6.75=-2.18$

$-6.75 \quad -6.75$ S.P.O.E

$\frac{-2.35x}{-2.35} = \frac{-8.93}{-2.35}$ D.P.O.E

$x=3.8$

(k) $\frac{x}{2}+4.82=2.57$

$-4.82 \quad -4.82$ D.P.O.E

$(2)\frac{x}{2} = -2.25(2)$ M.P.O.E

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

(l) $0.2x+1.6=1$

$-1.6 \quad -1.6$ S.P.O.E

$\frac{0.2x}{0.2} = \frac{-0.6}{0.2}$ D.P.O.E

$x=-3$