HW 4-8 EQUATIONS AND INEQUALITIES

Name:_____

Of the following four equations, one of them is solved correctly and three of them are not. Use what you know about solving equations using inverse operations to identify which equation is solved correctly. On the problem that is solved correctly, write "correct" and demonstrate that the answer is correct by plugging it back into the equation. If the equation is solved incorrectly, identify (as specifically as possible) what the mistake is and then solve the equation correctly next to it. You can use your notes and a calculator if necessary. ☺

A) $-5x = 30$

$+5 \quad +5$

$X = 35$

B) $\frac{-20}{4} \leq \frac{4x}{4}$

$-5 \geq x$

C) $-5 = 18 + x$

$-18 \quad -18$

$-13 = X$

D) $x + 9 = 20$

$-9 \quad -9$

$X = 11$

One of the equations on this page is solved correctly, and three are solved incorrectly. (Same instructions as first page.)

A) $24 - 2x = 17$

$-24 \quad -24$

$2x = -7$

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

$x = -3.5$

B) $2.5(x+6) = 20$

$-2.5 \quad -2.5$

$x + 6 = 17.5$

$-6 \quad -6$

$x = 11.5$

C) $7x - (-7) = 35$

$+7 \quad +7$

$7x = 42$

$\frac{7x}{7} = \frac{42}{7}$

$x = 6$

D) $\frac{-8+x}{3} = 20$

$3 \cdot \frac{(-8+x)}{3} = 20 \cdot 3$

$-8 + x = 60$

$+8 \quad +8$

$x = 68$

One of the equations on this page is solved correctly, and three are solved incorrectly. (Same instructions as first page.)

A) $\frac{3}{8}x = \frac{1}{2}$

$\frac{2}{1} \cdot \frac{3}{8} x = \frac{1}{2} \cdot \frac{2}{1}$

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

so $x = 1$

B) $-44 \geq -5x + 19.5$

$-19.5 \quad -19.5$

$\frac{-63.5}{-5} \geq \frac{-5x}{-5}$

$12.7 \leq x$

C) $\frac{x}{-3} - 7 \leq 11$

$+7 \quad +7$

$-3 \cdot \frac{x}{-3} \leq 18 \cdot -3$

$x \leq -54$

D) $-13 > \frac{x}{4} - 15$

$4 \cdot -13 > \frac{x \cdot 4}{4} - 15$

$-52 > x - 15$

$+15 \quad +15$

$-37 > x$

One of the equations on this page is solved correctly, and three are solved incorrectly. (Same instructions as first page.)

A) $-12x+(-6)=24$

$+6 \quad +6$

$\frac{-12x}{-12} = \frac{30}{-12}$

$x = -2.5$

B) $\frac{7}{9}x-10=11$

$+10 \quad +10$

$\frac{7}{9}x = 21$

$-\frac{7}{9} \quad -\frac{7}{9}$

$x = 20\frac{2}{9}$

C) $-7+4x<25$

$+7 \quad +7$

$\frac{4x}{4} = \frac{32}{4}$

$x = 8$

D) $3(x+14)=30$

$-14 \quad -14$

$\frac{3x}{3} = \frac{16}{3}$

$x = 5.\overline{3}$ or $5\frac{1}{3}$