PS 5 Key

(1) $2\left[\left[6(x-1)+8\right]-\left[2(3x-1)+8\right]\right]$

$(6x-6+8-[6x-2+8])$

$2(6x+2-(6x+6))$

$2(6x+2-6x-6)$

$2(-4) = \boxed{-8}$

(2) $-\frac{9}{4} \cdot \frac{1}{1} \cdot -\frac{14}{9}$

$-\frac{9}{4} \cdot \frac{9}{14} \rightarrow \boxed{\frac{81}{56}}$ $\boxed{1\frac{25}{56}}$

(3) $3x + 3(3x-6) = -4-2x$

$3x + 9x - 18 = -4-2x$

$12x - 18 = -4-2x$

$14x = 14$

$\boxed{x = 1}$

$3(1) + 3(3(1)-6) = -4-2(1)$

$3 + -9 = -6$ $\quad -6 = -6 \checkmark$

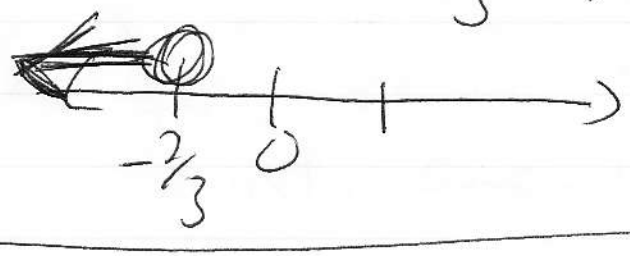
(4) $-8x-(5x+5)>8-(7x+9)$

$-8x-5x-5>8-7x-9$

$-13x-5>-7x-1$

$-4>6x$

$-\frac{2}{3}>x$ or $x<-\frac{2}{3}$



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(5) $\frac{47-50}{50}\times 100$

$-\frac{3}{50}\times 100 \rightarrow -6\%$

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(6) $(-9,0)\ (-5,5)$ $\quad \frac{5-0}{-5+9}=\frac{5}{4}$

$y-5=\frac{5}{4}(x+5)$

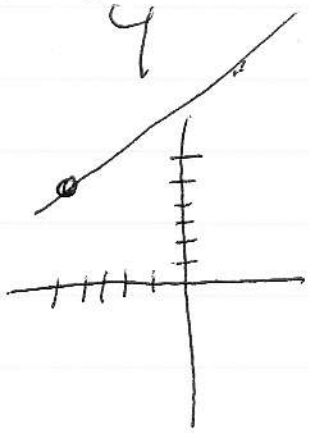
$y-5=\frac{5}{4}x+\frac{25}{4}$

$+5 \qquad +5$

$y=\frac{5}{4}x+\frac{45}{4}$

$4y=5x+45$

$5x-4y=-45$



(7) $A = \frac{1}{2}bh$

$2A = bh$

$\boxed{\frac{2A}{h} = b}$

(8) yes because each x is paired with one y.

(9) $4.5 - 4.57(-8.56) - 30$

4.57×8.56

2742

22850

365600

39.1192

-30

$\boxed{9.1192}$