HW #10

① a: $3x-12x+10$
$-10x+10$

b: $10-x$
$10-x$

c: $10(1-x)$
$10(1)+10(-x)$
$10-10x$

d: $\frac{2x(-x+1)}{2}$
$10(-x+1)$
$10(-x)+10(1)$
$-10x+10$

Expression b is different
b/c it's coeff. is -1 not -10

② $2(n+5)=-2$
$2(n)+2(5)=-2$
$2n+10=-2$
$-10 \quad -10$
$\frac{2n}{2} = \frac{-12}{2}$
$n=-6$

③ $6+3(2k-4)=-11$
$6+3(2k)+3(-4)=-11$
$6+6k-12=-11$
$6k-6=-11$
$+6 \quad +6$
$\frac{6k}{6} = \frac{-5}{6}$
$k=-5/6$

④ $-2=2+\frac{v}{4}$
$-2 \quad -2$
$4 \cdot -4 = \frac{v}{4} \cdot 4$
$-16=v$

⑤ $144=-12(x+5)$
$144=-12(x)-12(5)$
$144=-12x-60$
$+60 \quad +60$
$\frac{200}{-12} = \frac{-12x}{-12}$
$-\frac{50}{3} = x$

⑥ $7x+2(5x-2)=81$
$7x+2(5x)+2(-2)=81$
$7x+10x-4=81$
$17x-4=81$
$+4 \quad +4$
$\frac{17x}{17} = \frac{85}{17}$
$x=5$

⑦ $-35=-3x-4(2x-16)$
$-35=-3x-4(2x)-4(-16)$
$-35=-3x-8x+64$
$-35=-11x+64$
$-64 \quad -64$
$\frac{-99}{-11} = \frac{-11x}{-11}$
$9=x$

(8) $1-2(3x-5)=11$

$1-2(3x)-2(-5)=11$

$1-6x+10=11$

$11-6x=11$

$-11 \quad -11$

$-6x=0$

$-6 \quad -6$

$\boxed{x=0}$

(9) $4=2(3y-5)+17$

$4=2(3y)+2(-5)+17$

$4=6y-10+17$

$4=6y+7$

$-7 \quad -7$

$-3=6y$

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

$\boxed{-\frac{1}{2}=y}$

(10) Yes, Sheila would get the same answer. It is just the 2nd formula has distributed the $2\pi r$.

$S=2\pi r(r+h)$ ← Googled

$S=2\pi r(r)+2\pi r(h)$

$S=2\pi r^2+2\pi rh$ ← notes