

Homework Review $\Rightarrow$ Pg 266 #13, 17, 19, 21
+ 3 Problems

Note: $\left\{ \begin{matrix} \text{ven} & \text{ven} & \text{dd} & \text{art} \\ \text{E} & \text{I} & \text{E} & \text{I} & \text{N} & \text{O} & \text{O} \end{matrix} \right\} \Rightarrow \sqrt[n]{x^n} = x$

memory Aid

DO NOT NEED ABSOLUTE VALUE

$$\Rightarrow \sqrt[n]{x^n} = |x| \quad \text{NEED ABSOLUTE VALUE}$$

$$\Rightarrow \sqrt[n]{x^n} = \sqrt[n]{x^n x^1} = x \sqrt[n]{x}$$

DO NOT NEED ABSOLUTE VALUE

INDEX, IF NOT HERE, IT
MEANS $\sqrt{x}$, OTHERWISE,
IT MUST BE SHOWN.

ANS

13

$$X = 16$$

17

$$C = 9$$

19

$$X = -1$$

21

$$N = -20$$

ANS

$$\textcircled{A} X = \sqrt{6-x}$$

$$X^2 = 6-x$$

$$X^2 + x - 6 = 0$$

$$S \Rightarrow 1$$

$$P \Rightarrow -6$$

$$\begin{matrix} 1 & \\ -2 & +3 \end{matrix}$$

$$(X-2)(X+3) = 0$$

$$X = 2, -3$$

$$\text{CK } (2) \stackrel{?}{=} \sqrt{6-(2)} \checkmark$$

$$X=2$$

$$\text{CK } (3) = \sqrt{6-3} \text{ FALSE}$$

$$X=3$$

$$X = \{2\}$$

$$\textcircled{B} \sqrt{5x-6} = X$$

$$5x-6 = X^2$$

$$X^2 - 5x + 6 = 0$$

$$S \Rightarrow -5$$

$$P \Rightarrow 6$$

$$\begin{matrix} 1 & \\ -2 & -3 \end{matrix}$$

$$(X-2)(X-3) = 0$$

$$X = 2, 3$$

$$\text{CK } \sqrt{5(2)-6} \stackrel{?}{=} (2)$$

$$X=2 \quad \sqrt{4} \stackrel{?}{=} 2 \checkmark$$

$$\text{CK } \sqrt{5(3)-6} \stackrel{?}{=} 3$$

$$X=3 \quad \sqrt{9} \stackrel{?}{=} 3 \checkmark$$

$$X = \{2, 3\}$$

$$\textcircled{C} \sqrt{28-3x} = X$$

$$28-3x = X^2$$

$$X^2 + 3x - 28 = 0$$

$$S = 3$$

$$P = -28$$

$$\begin{matrix} 1 & \\ -4 & +7 \end{matrix}$$

$$(X-4)(X+7) = 0$$

$$X = 4, -7$$

$$\text{CK } \sqrt{28-3(4)} \stackrel{?}{=} (4)$$

$$X=4 \quad \sqrt{16} \stackrel{?}{=} 4 \checkmark$$

$$\text{CK } \sqrt{28-3(-7)} \stackrel{?}{=} (-7)$$

$$X=-7 \quad \sqrt{28+21} \stackrel{?}{=} -7$$

$$\sqrt{49} \neq -7 \text{ FALSE}$$

$$X = \{4\}$$