

1.12.16

Slot Quiz + Modeling/Regression Quiz Tomorrow.

Solve each equation. Remember to check for extraneous solutions.

Step 1: Isolate the square root

Step 2: Square both sides

Step 3: Solve resulting equation.

Step 4: Check your answer to make sure it is not extraneous!

$$7) n = (\sqrt{30 - n})^2$$

$$n^2 = 30 - n$$

$$n^2 + n - 30 = 0$$

	n	-5
n	n^2	$-5n$
6	$6n$	-30

~~-30~~
 ~~-5~~
 ~~6~~

$$(n+6)(n-5)=0$$

$$n+6=0 \quad n-5=0$$

$$\cancel{n=-6} \quad \boxed{n=5}$$

$$-6 = \sqrt{30 - (-6)}$$

$$-6 = 6 \quad \times$$

$$5 = \sqrt{30 - 5}$$

$$5 = 5 \quad \checkmark$$

$$8) -3 = \sqrt{6v+6} - 9$$

$$+9 \quad +9$$

$$6 = (\sqrt{6v+6})^2$$

$$36 = 6v + 6$$

$$-6 \quad -6$$

$$\frac{30}{6} = \frac{6v}{6}$$

$$\boxed{5 = v}$$

$$-3 = \sqrt{6(5)+6} - 9$$

$$-3 = \sqrt{36} - 9$$

$$-3 = 6 - 9$$

$$-3 = -3 \quad \checkmark$$