

Squaring $\sqrt{4x + 13} - 3$:

Squaring $\sqrt{4x + 13} - 3$:

$$(\sqrt{4x + 13} - 3)^2 = (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3)$$

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13\end{aligned}$$

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13}\end{aligned}$$

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13} - 3\sqrt{4x + 13}\end{aligned}$$

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13} - 3\sqrt{4x + 13} + 9\end{aligned}$$

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13} - 3\sqrt{4x + 13} + 9\end{aligned}$$

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13} - 3\sqrt{4x + 13} + 9 \\ &= 4x + 22 - 6\sqrt{4x + 13}\end{aligned}$$

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13} - 3\sqrt{4x + 13} + 9 \\ &= 4x + 22 - 6\sqrt{4x + 13}\end{aligned}$$

After all that work, we still have the same square root in our equation.

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13} - 3\sqrt{4x + 13} + 9 \\ &= 4x + 22 - 6\sqrt{4x + 13}\end{aligned}$$

After all that work, we still have the same square root in our equation.

So, our equation is no easier (in fact, it is harder) to solve than it was before.

Squaring $\sqrt{4x + 13} - 3$:

$$\begin{aligned}(\sqrt{4x + 13} - 3)^2 &= (\sqrt{4x + 13} - 3)(\sqrt{4x + 13} - 3) \\ &= 4x + 13 - 3\sqrt{4x + 13} - 3\sqrt{4x + 13} + 9 \\ &= 4x + 22 - 6\sqrt{4x + 13}\end{aligned}$$

After all that work, we still have the same square root in our equation.

So, our equation is no easier (in fact, it is harder) to solve than it was before.

Let's return to the original form of the equation.