## Name:

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## Solving Radical Equations

1) Solve each equation. Check your solution.
2) $\sqrt{m}=4$
3) $\sqrt{y}=-2$
4) $\sqrt{2 d}=4$
5) $-\sqrt{5 k}=15$
6) $\sqrt{8 t}=4$
7) $\sqrt{t+5}=7$
8) $\sqrt{2 x+6}=6$
9) $\sqrt{r+12}=r$
10) $\sqrt{9 m+4}-2=m$
11) $\sqrt{4 m+5}-6=2$
12) $\quad \sqrt{3 k+10}=k$
13) $2+\sqrt{4 d+4}=d$
14) $\sqrt{h+5}=0$
15) $\sqrt{3 r-2}+5=4$
16) $x-10=\sqrt{x+2}$
17) $5-\sqrt{5 r-6}=9-r$
18) Hana is planting a vegetable garden. She wants it to be square as shown. Hana decides that the garden is not large enough so she doubles the length and width.

19) Write an expression for the area of the new garden.
20) Find the value of $x$ if the value of the new area is $484 ~ f t^{2}$
21) The area of a circle is given by the formula $A=\pi r^{2}$. If the area of a circle is $121 \pi$ square feet, what is the radius?
