## Solving Radical Equations (additional practice)

Solve each of the following equations. Show all necessary work.

1. $\sqrt{x+1}+5=x$
2. $2 x=\sqrt{1-3 x}$
3. $x-\sqrt{x-1}=7$
4. $x=\frac{\sqrt{2-3 x}}{3}$
5. $\sqrt{x}-2=x-22$
6. $\frac{1}{x}=\frac{3}{\sqrt{4 x+1}}$
7. $\sqrt{x+2}=-x-2$
8. $3+\sqrt{x}=1+x$
9. $\sqrt{x^{2}-8 x}=3$
10. $\sqrt{2 x+5}+x=5$

Answers:

1. $x=8$
2. $x=\frac{2+\sqrt{13}}{9}$
3. $x=10$
4. $x=25$
5. $x=-2$
6. $x=4$
7. $x=-1,9$
8. $x=\frac{1}{4}$
9. $x=2$
10. $x=\frac{1}{3}$

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