Simplify Radical Equations - Practice

Simplify the following problems. Be sure to check your answers.

1.
$$x^3 = 8$$

2.
$$x = \sqrt{-6x + 7}$$

3.
$$x = \sqrt{8x - 7}$$

4.
$$x^2 - 36 = 0$$

5.
$$(x+5)^2 = 7$$

6.
$$x + 2 = \sqrt{-2x - 1}$$

7.
$$x + 2 = \sqrt{21}$$

8.
$$(x+3)^2 = 116$$

9.
$$(x-3)^2 = -64$$

10.
$$x = \sqrt{6x + 29}$$

Solutions:

1.
$$x = 22$$
. $x = 1$

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$$x = 22$$
. $x = 1$ 3. $x = 1,7$ 4. $x = -6,6$

$$5. x = 5 - \sqrt{7}, 5 + \sqrt{7}$$

5.
$$x = 5 - \sqrt{7}$$
, $5 + \sqrt{7}$ 6. $x = -1$ 7. $x = -2 - \sqrt{21}$, $-2 + \sqrt{21}$

$$8. x = -3 - 2\sqrt{29}, -3 + 2\sqrt{29}9. x = 3 - 8i, 3 + 8i \ 10. x = 3 - \sqrt{28}, 3 + \sqrt{28}$$

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