Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Rationalize the denominator $\dfrac{3\sqrt{x}}{\sqrt{x} + \sqrt{7}}$

2. Solve the equation $(2x - 6)^6 = 64$.

3. Solve the equation $\sqrt{x^2 - x - 4} = 4$