

YOUR NAME: \_\_\_\_\_

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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 and simplify:

$$\frac{\sqrt{2}}{\sqrt{3}} =$$

2. Rationalize the denominator and simplify:

$$\frac{\sqrt{3}}{\sqrt{2} - \sqrt{3}} =$$

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

4. Solve the equation  $(x - 3)^{2/3} = 4$ .