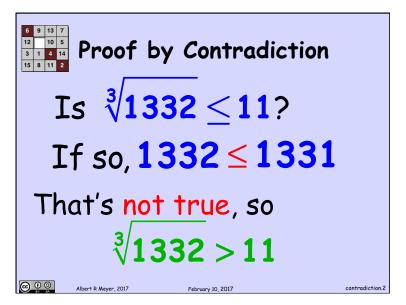


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Proof by Contradiction

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Proof by Contradiction

If an assertion implies something false, then the assertion itself must be false!





12 10 5 3 1 4 14 15 8 11 2 Proof by Contradiction

Theorem: $\sqrt{2}$ is irrational.

- Suppose $\sqrt{2}$ was rational
- · So have n, d integers without common prime factors such that

$$\sqrt{2} = \frac{n}{d}$$

· We will show that n & d are both even. This contradicts no common factor.

