

Unit 5 (A.REI.A – radical) Review

Solve each equation. Show all required work. Check for and identify any extraneous solutions.

1) $x = \sqrt{10x - 24}$

2) $5 \cdot \sqrt[3]{3x + 5} = -35$

3) $\sqrt[4]{x} + 48 = 43$

Answer(s): _____

Answer(s): _____

Answer(s): _____

4) A formula showing how to calculate the radius of a sphere based on its volume is

$$\sqrt[3]{\frac{3V}{4\pi}} = r$$

Show how to use this formula to calculate the volume of a sphere with a radius of 8 cm. Leave your answer in terms of π (not converting π to a decimal). Don't forget your units!

Exemplary:

5) Solve each equation. Show all required work. Show your check.

$$x + 2 = \sqrt{40 - x}$$

Answer: _____