

TRS 92 Homework: Roots

- Read textbook Section 8.1 p. 643-648.

Practice New Skills: Estimate the following values. Explain your strategy.

1. $\sqrt{40} =$

Strategy:

2. $\sqrt{79} =$

Strategy:

3. $\sqrt{17} =$

Strategy:

4. Fill in the blanks with the correct vocabulary: In the expression, $\sqrt[3]{63}$, the 3 is called the _____ and the 63 is called the _____.

Indicate if the following expressions do or do not have a real number solution.

	Expression	Real number solution? (yes or no)
5.	$\sqrt{-25}$	
6.	$\sqrt{3.4}$	
7.	$\sqrt[7]{-900}$	
8.	$\sqrt[4]{-900}$	
9.	$\sqrt[3]{-63}$	
10.	$\sqrt[3]{63}$	
11.	$\sqrt[6]{13}$	
12.	$\sqrt[6]{-12}$	

Textbook assignment: p. 651-652, # 11-21, 33, 39, 41, 43-48

Writing Prompt #2 (due Thursday)

Using your Day 5 HW with the introduction to writing information, write a complete explanation for the following question. Vocabulary that should be used includes, but is not limited to: radicand, root, and index. Vocabulary that should not be used/needed: complex numbers. Your explanation should also include examples. It should either be typed or written neatly on this page or separate, lined paper.

Why are there real number solutions for the roots of negative numbers in some cases but not in others?