

EXAMPLE:

Order the following radicals from least to greatest.

$$\begin{array}{c}
 \sqrt[3]{13}, \sqrt[4]{18}, \sqrt[3]{9}, \sqrt[4]{27}, \sqrt[3]{-5} \\
 \begin{array}{cccccc}
 \sqrt[3]{8} & \sqrt[3]{27} & \sqrt[4]{6} & \sqrt[3]{3} & \sqrt[4]{16} & \sqrt[3]{81} \\
 2 & 3 & 4 & 3 & 2 & 3
 \end{array} \\
 \sqrt[3]{-5}, \sqrt[4]{27}, \sqrt[3]{13}, \sqrt{9}, \sqrt{18}
 \end{array}$$

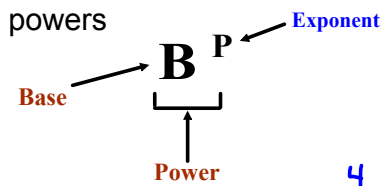
YOU TRY!

$$2^3 = 2 \times 2 \times 2 = 8$$

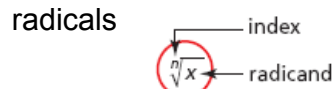
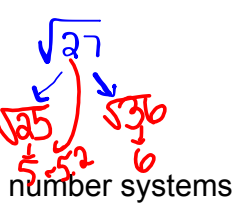
Order the following radicals from least to greatest.

$$\begin{array}{c}
 \sqrt{2}, \sqrt[3]{-2}, \sqrt[3]{6}, \sqrt{11}, \sqrt[4]{30} \\
 \begin{array}{cccccc}
 \sqrt{1} & \sqrt{4} & \sqrt[3]{1} & \sqrt[3]{8} & \sqrt[3]{9} & \sqrt[4]{16} \\
 1 & 2 & 1 & 2 & 3 & 4
 \end{array} \\
 \sqrt[3]{-2}, \sqrt{2}, \sqrt[3]{6}, \sqrt[4]{30}, \sqrt{11}
 \end{array}$$

So far...



$7 \cdot 7 \cdot 7 \cdot 7 = 7^4$
 $6^3 = 6 \times 6 \times 6$
 Terms base is 6 exponent is 3



$\sqrt[3]{-27} = -3$
 index is 3 radicand is -27

Side length of square with area 169 cm^2

ordering

use what you know to determine the order of a list of numbers

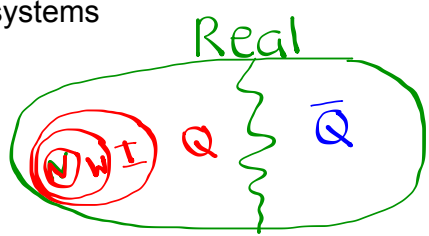


chart style

Assess your understanding pg 206

1. try without calc.

HW → 2.

HW → 3. ESTIMATE

4.

5. i) a-c

6.

Other sheet:

Chart & ordering

for HW (# 1 & 3)

1. Use a number line to order these numbers from least to greatest.
Identify which numbers are irrational and which are rational.

$$\frac{-14}{5}, \frac{123}{99}, -2, \sqrt[3]{-10}, \sqrt{4}$$

2. a) Which of the following statements are true? Explain your reasoning.
- i) All natural numbers are integers. **T or F**
 - ii) All integers are rational numbers. **T or F**
 - iii) All whole numbers are natural numbers. **T or F**
 - iv) All irrational numbers are roots. **T or F**
 - v) Some rational numbers are natural numbers. **T or F**
- b) For each statement in part a that is false, provide examples to explain why.

3. Complete the following table

	N	W	I	Q	\bar{Q}	R
$\frac{1}{2}$						
$\sqrt[3]{-7}$						
$\sqrt{4}$						
$-\frac{2}{6}$						
$\sqrt{6.15}$						
17						
16.12						
$-13.\bar{4}$						

4. Estimate each of the following. Show all your work.

a) $\sqrt{34}$

b) $\sqrt[3]{30}$