

Name: key Period: _____ Date: _____

1.8 - 1.10 Study Guide
NO CALCULATORS ALLOWED

There will be no calculators allowed for the quiz

****Make sure to memorize all perfect squares up to 13 and all perfect cubes up to 10****

For 1-7 Find each square root and cube root. Write your answer on the line provided.

1. $\sqrt{81}$

1. 9

2. $-\sqrt{100}$

2. -10

3. $\sqrt{-49}$

3. NO solution

4. $\pm\sqrt{169}$

4. ± 13

5. $\sqrt[3]{27}$

5. 3

6. $\sqrt[3]{-216}$

6. -6

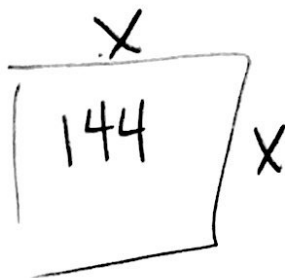
7. $\sqrt{x^2} = 36$

7. $x = 6$

$x = 6$

8. The area of a square ceiling tile is 144 square inches. What is the length of one edge of the tile? You must include units!

8. 12 in.



$$x \cdot x = 144$$

$$\sqrt{x^2} = \sqrt{144}$$

$$x = 12$$

9. Order the set of numbers from least to greatest .

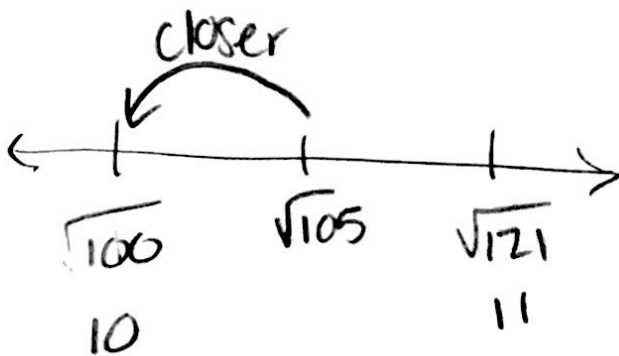
$$\{3.2, 3\frac{4}{100}, \sqrt{9}, 3.012, \sqrt{8}\}$$

$\begin{array}{ccccc} \downarrow & & \downarrow & & \downarrow \\ 3.17 & & 3 & & 2.83 \end{array}$

9. $\sqrt{8}, \sqrt{9}, 3.012, 3\frac{17}{100}, 3.2$

10. Without a calculator, estimate **and** graph $\sqrt{105}$ on the number line.

10. $\sqrt{105} \approx 10$



11. Can you have a negative underneath the radical of a square root? Why or why not?

No, because the same two numbers being multiplied will NEVER equal a negative

ex. $3 \cdot 3 = 9$ and $-3 \cdot -3 = 9$

12. Can you have a negative underneath the radical of a cube root? Why or why not?

Yes, three negatives multiplied together will equal a negative

ex. $-3 \cdot -3 \cdot -3 = -27$