

Unit 1: Number Sense

Name _____ Period _____ Date _____

Quiz Study Guide

Directions: Identify the following numbers as either **Rational or Irrational numbers**.
Write the entire word **Rational or Irrational** on the line provided.

1. _____ 18.10293...

2. _____ $\sqrt{19}$

3. _____ $\sqrt{27}$

4. _____ $\sqrt[3]{125}$

5. _____ $-8\frac{1}{3}$

6. _____ $\overline{.45}$

7. _____ .87878787...

Directions: What two rational numbers do the following fall between? (2 points each)

8. $\sqrt{17}$ falls between _____ and _____ on the number line
but is closer to _____.

9. $\sqrt{98}$ falls between _____ and _____ on the number line.
but is closer to _____.

10. $\sqrt[3]{16}$ falls between _____ and _____ on the number line.
but is closer to _____.

Directions: Convert the following fractions to decimals and decimals to fractions. All answers must be completely simplified. Show all work to receive full credit. (2 points for #11-13; 3 points for #14)

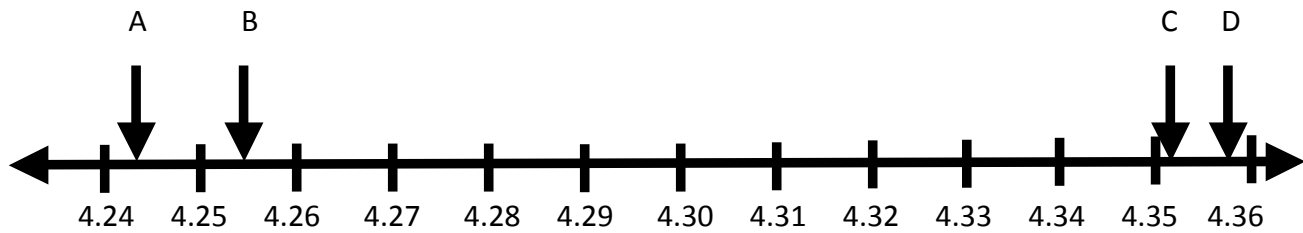
11. $\frac{1}{9} =$ _____

12. $\frac{5}{8} =$ _____

13. $.27 =$ _____

14. $.\overline{27} =$ _____

Directions: Use the number line below to answer items # 15 – 17. (1 point each)



15. _____ When $\sqrt{18}$ is entered on a calculator the follow answer is displayed: 4.2426406871. Which letter above best approximates the location of $\sqrt{18}$ on the number line?

16. _____ When $\sqrt{19}$ is entered on a calculator the follow answer is displayed: 4.358898943. Which letter above best approximates the location of $\sqrt{19}$ on the number line?

17. Use either $<$, $>$, or $=$ symbol to represent a true comparison below.

$$\sqrt{19} \quad \underline{\hspace{1cm}} \quad \sqrt{18}$$