Which of the following is an irrational number?

a. $\sqrt{9}$ c. $\sqrt{25}$

b. $\sqrt{4}$ d. $\sqrt{15}$

Which of the following is a rational number?

a. $\sqrt{15}$ c. $\sqrt{4}$

b. $\sqrt{10}$ d. $\sqrt{20}$

Convert 31.161616... to a rational expression in the form of $\frac{a}{b}$, where $b \neq 0$.

a. $31\dfrac{16}{16}$ c. $31\dfrac{16}{99}$

b. $31\dfrac{16}{9999}$ d. $31\dfrac{16}{999}$

Convert 28.242424... to a rational expression in the form of $\frac{a}{b}$, where $b \neq 0$.

a. $28\dfrac{99}{24}$ c. $28\dfrac{24}{9999}$

b. $28\dfrac{24}{999}$ d. $28\dfrac{24}{99}$

Which mathematical symbol would best fill in the blank between the two numbers?

$$\sqrt{24} \underline{\quad\quad} \frac{17}{10}$$

a. $>$

b. $<$

c. $\leq$

d. $\geq$

Order the set of numbers from least to greatest: $\frac{-7}{8}, -7, -\sqrt{50}, \frac{-57}{8}$

a. $\frac{-57}{8}, -\sqrt{50}, -7, \frac{-7}{8}$

b. $\frac{-7}{8}, -7, -\sqrt{50}, \frac{-57}{8}$

c. $\frac{-7}{8}, -7, \frac{-57}{8}, -\sqrt{50}$

d. $-\sqrt{50}, \frac{-57}{8}, -7, \frac{-7}{8}$

Identify the number that does not belong with the other three. Explain your reasoning.

$$\frac{16}{5} \qquad 3.69 \qquad \sqrt{114} \qquad 0.212121...$$

Which mathematical symbol would best fill in the blank between the two numbers?

$$\sqrt{25} \underline{\quad\quad} \frac{89}{28}$$

a. $\leq$

b. $<$

c. $\geq$

d. $>$

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