

Instructions: Show all work. Give exact answers (improper fractions) and do not round unless specifically asked to do so. If you work the problem in your calculator you can write keystrokes to show work for partial credit.

1. For the set of numbers $\left\{ \frac{14}{19}, 0, -7, \frac{1}{\sqrt{3}}, 1.35, 15, \frac{\pi}{e}, \frac{32}{8}, 9.12162432 \dots, -\sqrt{\frac{9}{16}} \right\}$ determine which numbers belong to each set.

a. Natural numbers

$$\left\{ 15, \frac{32}{8} \right\}$$

b. Integers

$$\left\{ 0, -7, 15, \frac{32}{8} \right\}$$

c. Rational Numbers

$$\left\{ \frac{14}{19}, 0, -7, 1.35, \frac{32}{8}, -\sqrt{\frac{9}{16}}, 15 \right\}$$

d. Irrational numbers

$$\left\{ \frac{1}{\sqrt{3}}, \frac{\pi}{e}, 9.12162432 \dots \right\}$$

2. A student conducted research and found that the number of mobile phone users in the United States during one month in 2014 was 327,577,529. Name that number in words.

Three hundred twenty-seven million, five hundred seventy-seven thousand, five hundred twenty-nine.

3. Round the number 391,794 to the nearest:

a. Thousand

$$392,000$$

b. Ten Thousand

$$390,000$$