

## Worksheet 9/8/2023

Use set notation (braces) to write the members of the following sets or state that the set has no members. You may use three dots (...) to indicate patterns.

1. The perfect squares between 11 and 56.
2. The states that share a border with the state of Utah.
3. The states that share a border with the state of Hawaii.
4. The dates of February 2023.

Choose ALL the sets in the list natural numbers ( $\mathbb{N}$ ), integers ( $\mathbb{Z}$ ), rational numbers ( $\mathbb{Q}$ ), and real numbers ( $\mathbb{R}$ ) that contain each of the following numbers.

5. 45
6. 0
7.  $-3/4$
8. -7
9. 2.12121212...
10.  $\pi$
11.  $\sqrt{3}$
12.  $\sqrt{9}$
13.  $\pi/6$

Draw Venn diagrams showing the relationship between the following sets. Provide an explanation of the diagram you draw.

14. high school students and people with driver's licenses

15. shirts and clothing

16. poets and plumbers

17. women and American presidents

18. words that begin with  $t$ , nouns, and words with fewer than 5 letters

19. odd numbers, perfect squares, and numbers ending with 7