CSE 191 Recitation
3/13/23 - 3/17/23 - Sets
Describe the following sets using roster or set builder notation:

1. The colors of the rainbow
2. The suits in a deck of cards
3. The people in this room that have blue eyes
4. Words that have an even number of letters and start with a vowel
Set Operations

Describe the following sets using roster or set builder notation:

1. \( (\{A, B, C, D\} \cup \{1, 2, 3, 4\}) - \{x \mid x\ \text{is an even integer}\} \)
2. \( \{1, 2, 3, 4, 5\} \cap \{2, 4, 6, 8, 10\} \)
3. \( \{1, 2, 3, 4, 5\} - \{2, 4, 6, 8, 10\} \)
4. \( \{1, 2, 3, 4, 5\} \oplus \{2, 4, 6, 8, 10\} \)
5. \( \{x \mid x\ \text{is a TAs}\} \) where the universal set is people in this room
How many elements are in $\mathcal{P}\{a,b,c\}$?

Compute $\mathcal{P}\{a,b,c\}$?
Cartesian Product and Partitions

Let \( V = \{ A, 2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K \} \)
\( S = \{ \text{Clubs, Diamonds, Hearts, Spades} \} \)

Describe \( D = V \times S \) using set builder notation.

What is \(|D|\)?

Come up with a few ways to partition \( D \) and describe them with set notation.