## Start-up

1._Consider the set of all integers from 1 to 10. Create a Venn diagram with all 10 integers in the set.


Let set $A$ be the outcomes of prime numbers and set $B$ be the outcomes of odd.
a. Find $A \cap B$. What does it represent?
b. Find $A \cup B$. What does it represent?
c. Find $(A \cup B)^{\prime}$. What does it represent?
2. Felipe sureveyed students at his school. He found that 78 students own an cell phone and 57 of those students own an iPad. There are 13 students that do not own a cell phone, but own an iPad. Nine students do not own either device. Construct a two-way frequency table to summarize the data.

|  | iPad | No iPad | Total |
| :---: | :---: | :---: | :---: |
| Cell Phone |  |  |  |
| No Cell phone |  |  |  |
| Total |  |  |  |

a. $\mathrm{P}($ Cell Phone)
b. $\mathrm{P}(\mathrm{iPad})$
c. $\quad \mathrm{P}($ No Cell Phone $\cap \mathrm{iPad})$
d. $\mathrm{P}($ Cell Phone $\cup$ iPad)

