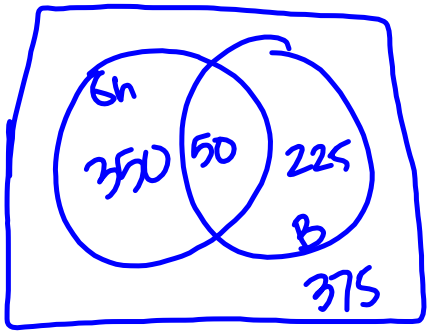
# Questions on 9.1?




① $350+50+225+375=$ 1000 students

⑤ $P(B)=\frac{275}{1000}=0.275=$ 27.5%.

**Standard deck**

- 52 total cards
- 4 suits
  - ♡ - hearts } red
  - ♢ - diamonds }
  - ♧ - clubs } black
  - ♤ - spades }
- 2-10, J, Q, K, A (13 of each suit)

33 students

13 choc.

17

# 9.2 Chocolate versus Vanilla

*A Solidify Understanding Task*

Danielle loves chocolate ice cream much more than vanilla and was explaining to her best friend Raquel that so does most of the world. Raquel disagreed and thought vanilla is much better. To settle the argument, they created an online survey asking people to choose their favorite ice cream flavor between chocolate and vanilla. After completing the survey, the following results came back:

- There were 8,756 females and 6,010 males who responded.
- Out of all the males, 59.7% chose vanilla over chocolate.
- 4,732 females chose chocolate.

1. Upon first observations, which flavor do you think "won"? _____. Write a sentence describing what you see at 'first glance' that makes you think this.

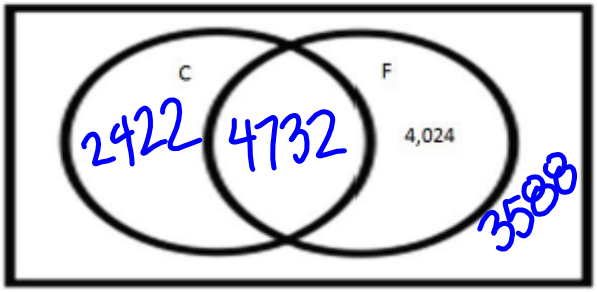
2. Raquel started to organize the data in the following two-way table. See if you can help complete this (using counts and not percentages):

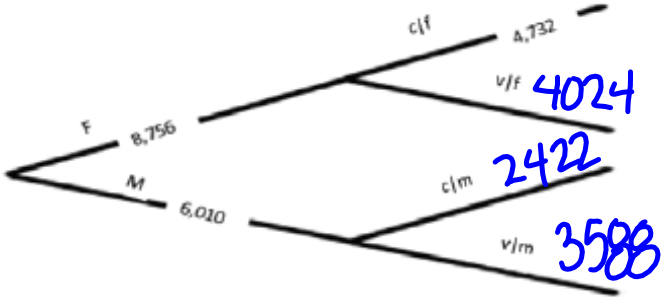
0.597 (6010) = 3588

| | Chocolate | Vanilla | Total |
|---|---|---|---|
| Female | 4732 | 4024 | 8,756 |
| Male | 2422 | 3588 | 6,010 |
| Total | 7154 | 7612 | 14766 |

c/f

3. Organize the same data in a Venn diagram and a tree diagram.



4. Using your organized data representations, write probabilities that help support your claim regarding the preferred flavor of ice cream. For each probability, write a complete statement as well as the corresponding probability notation.

$P(C) = \frac{7154}{14766} = 0.484$ $P(C|M) = \frac{2422}{6010} = 0.403$ $P(V|M) = \frac{3588}{6010} = 0.597$

$P(V) = \frac{7612}{14766} = 0.516$ $P(C|F) = \frac{4732}{8756} = 0.540$ $P(V|F) = \frac{4024}{8756} = 0.460$

5. Looking over the three representations (tree diagram, two-way table, and Venn diagram), what probabilities seem to be easier to see in each? What probabilities are hidden or hard to see?

| Highlighted (easier to see) | Hidden |
|---|---|
| Tree diagram totals, conditional probabilities | Tree diagram total # of choc & van. |
| Two-way table totals for everything | Two-way table |
| Venn diagram females & choc. | Venn diagram men & vanilla |

6. Getting back to ice cream. Do you think this is enough information to proclaim the statement that one ice cream is favored over another? Explain. w/ math

pg 11 is = of • $\frac{\%}{100}$ or move decimal 2 places to L.

(20) $\frac{70}{0.6} = \frac{0.60 \cdot x}{0.6}$ $___ = x$

(15) $___ = \frac{1}{2} \cdot \frac{1}{3}$

# Homework

# Finish 9.2 "Ready, Set, Go"