

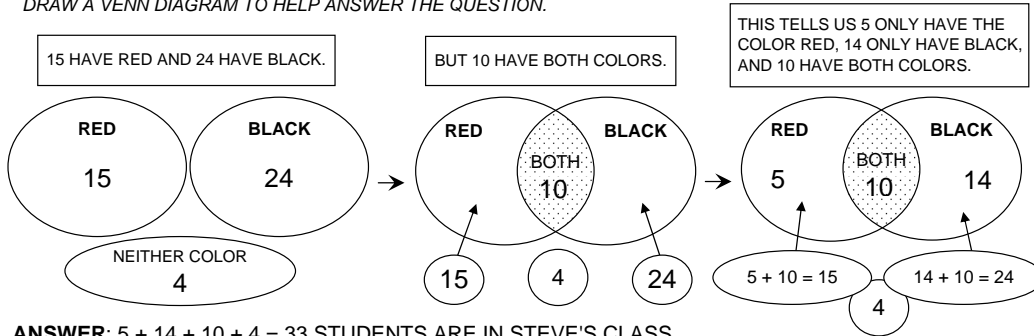
# VENN DIAGRAMS

# ANSWERS

## HELPFUL EXAMPLE

IN STEVE'S CLASS, 15 STUDENTS HAVE THE COLOR RED ON THEIR BACKPACKS, 24 STUDENTS HAVE BLACK ON THEIR BACKPACKS, 10 HAVE BOTH COLORS, AND 4 DID NOT HAVE EITHER COLOR ON THEIR BACKPACKS. HOW MANY STUDENTS ARE IN THE CLASS?

DRAW A VENN DIAGRAM TO HELP ANSWER THE QUESTION.



ANSWER:  $5 + 14 + 10 + 4 = 33$  STUDENTS ARE IN STEVE'S CLASS.

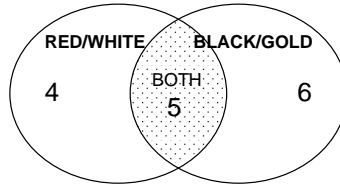
NOW YOUR TURN. USE VENN DIAGRAMS TO SOLVE THE PROBLEMS BELOW.

- Mike's football team wants to buy new jerseys this year. Half the team wants the colors to be red and white, 11 players want the colors to be black and gold, and 5 players like both color jerseys. If there are 18 players on the team, how many do not like either color jerseys?

$$4 + 6 + 5 = 15$$

$$18 - 15 = 3$$

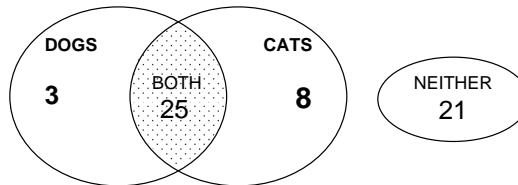
3 players liked neither colors



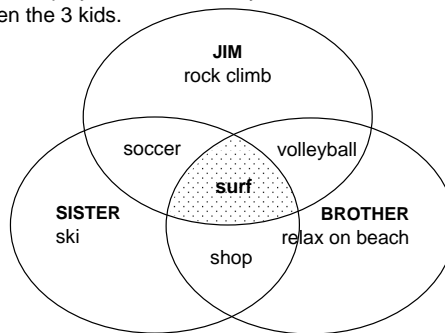
- Henry and Scott live in the same neighborhood. 28 of their neighbors own dogs, 33 have cats, and 25 have both cats and dogs. If 21 of the families do not have either pet, how many families live in their neighborhood?

$$3 + 8 + 25 + 21 = 57$$

57 families live in their neighborhood



- Jim's family is going on a trip. His sister wants to surf, ski, shop, and play soccer. His older brother wants to relax on the beach, surf, shop, and play volleyball. Jim wants to play soccer and volleyball, learn to rock climb, and surf. Create a Venn diagram showing the relationship between the 3 kids.



- Ning's favorite colors are red, pink, green, violet, and blue. Mike's favorite colors are purple, blue, red, black, and green. Jill's favorite colors are blue, yellow, purple, green, and pink. Create a Venn diagram showing the relationship between the 3 sets.

