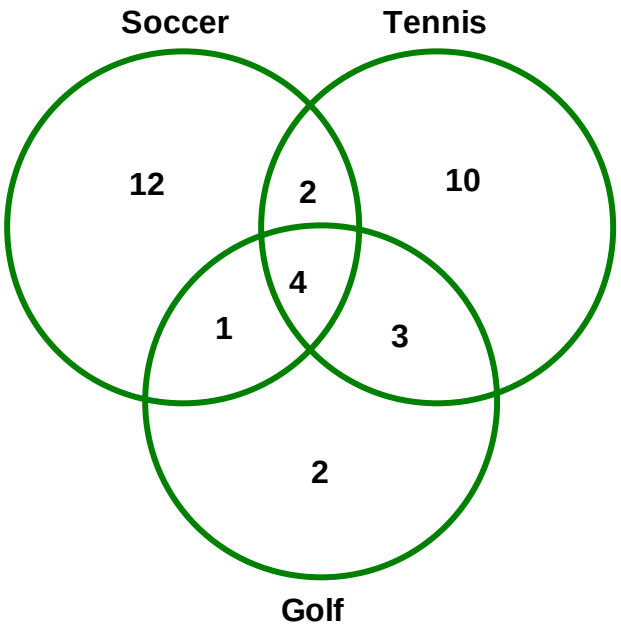
Geometry
2-4 Venn diagrams

Name: _____ Time› Start: _____ Finish: _____ Total Time = _____

Consider the Venn diagram below.



_____ 1. How many kids are on the golf team?

_____ 2. How many kids play just golf and nothing else?

_____ 3. How many kids are on the soccer team and on the tennis team?

_____ 4. How many kids are on the golf team and on the tennis team?

_____ 5. How many kids play just tennis and nothing else?

_____ 6. How many kids are a member of all three teams?

_____ 7. How many kids are on the tennis team?

_____ 8. 20 kids are on the basketball team and there are 14 kids on the hockey team. If there are a total of 6 kids who are on both the basketball team and the hockey team, how many total kids are on both teams? (Draw a Venn diagram to help.)

_____ 9. 4 kids are on both the chess team and the bowling team. If there are a total of 10 kids on the chess team and a total of 24 kids who are on the chess team or bowling team, how many kids are on the bowling team? (Draw a Venn diagram to help.)

Figure 1

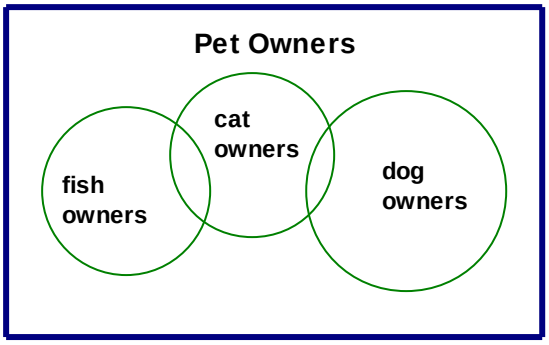


Figure 2

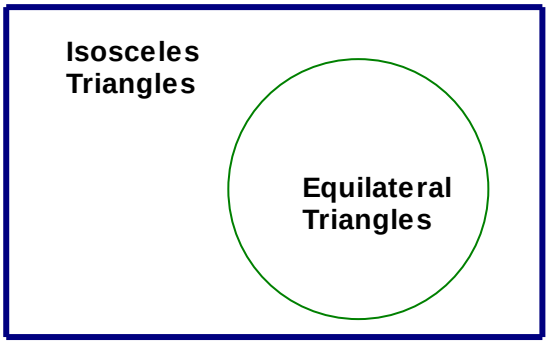
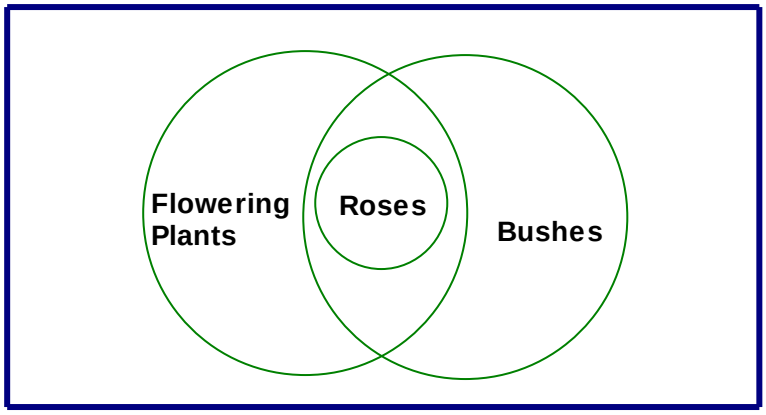


Figure 3



_____ 10. In Figure 1 above, which is a valid conclusion? (2004 SOL question)

A. No cat owners also own dogs.
B. No dog owners also own fish.
C. No fish owners also own cats.
D. No pet owner owns more than one pet.

_____ 11. In Figure 2 above, which statement is true? (2005 SOL question)

A. All isosceles triangles are also equilateral triangles.
B. All equilateral triangles are also isosceles triangles.
C. Some equilateral triangles are also isosceles triangles.
D. No isosceles triangles are equilateral triangles.

_____ 12. In Figure 3 above, which statement is true? (2008 SOL question)

A. No bushes are flowering plants.
B. No roses are bushes.
C. Some roses are not flowering plants.
D. Some flowering plants are bushes.