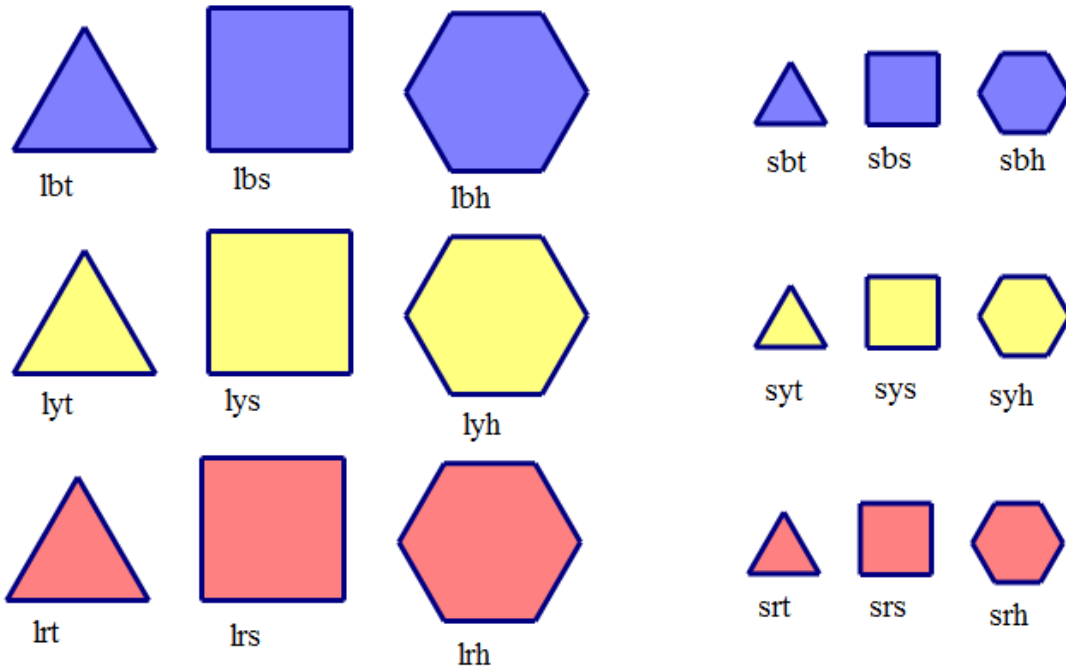


Use the set of Attribute Blocks shown below to answer questions 1-2.

Attribute Blocks



The entire set of can be arranged in many different subsets. Here are some of the possibilities:

S is the set of small attribute pieces

L is the set of large attribute pieces

T is the set of triangles

SQ is the set of squares

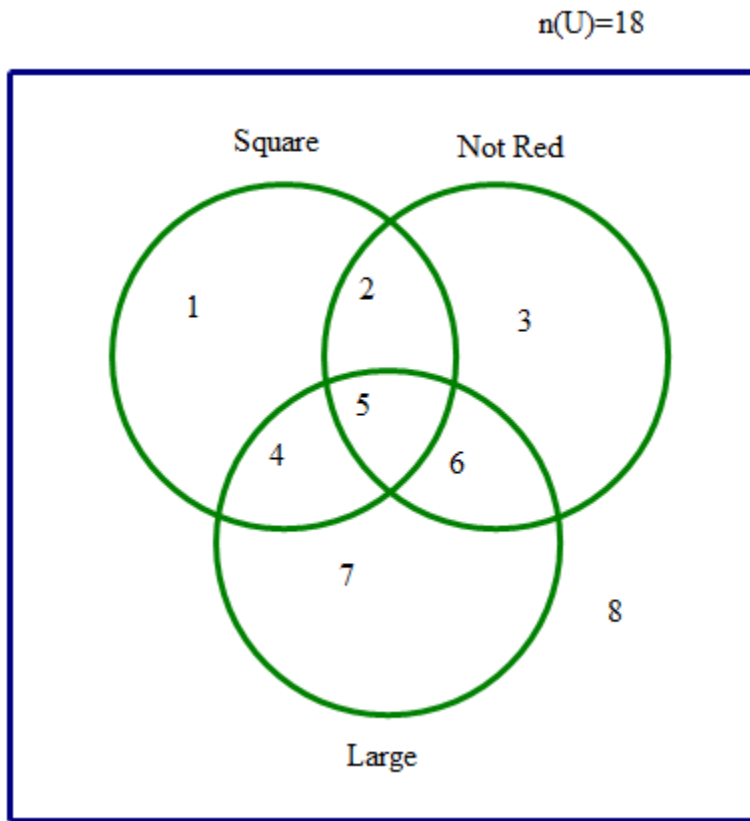
H is the set of hexagons

B is the set of blue attribute pieces

Y is the set of yellow attribute pieces

R is the set of red attribute pieces

List the attribute pieces for each of the eight regions in the diagram below. Use proper set notation, including braces {} and elements separated by commas with no duplicates:



- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

List the elements in each of the following sets. Use proper set notation, including braces $\{\}$ and elements separated by commas with no duplicates. Use \emptyset to denote the empty set.

9. $L \cap T =$

10. $Y \cup SQ =$

11. $(T \cup B)' =$

12. $R \cap B =$

13. $(H \cap Y) \cup S =$

14. $(L' \cap Y) \cup H =$

Determine whether each of the following statements are True or False

15. Y and $Y \cap (S \cup Y)$ are equal

16. $(SQ \cap B)$ and L are disjoint

17. R is a proper subset of T'

18. lbh is an element of SQ'

19. Among 35 students in a class with 35 students, 20 students rode bicycles, 8 students skateboarded, and 2 students didn't ride a bicycle or skateboard. How many students did both? Construct and label a Venn diagram to support your answer.
20. 1068 students registered for spring classes at NJCU, 525 students registered for education courses, 237 registered for mathematics courses, and 192 registered for science courses. Of these, 129 students registered for both mathematics and science classes, 52 registered for both education and mathematics courses, 13 registered for only science courses, 34 students registered for all three types of courses. How many students did not register for either science or education or mathematics courses? Construct and label a Venn diagram to support your answer.