

Name _____ Date _____

Day 1 – The Counting Principle, Subsets, and Logic

(A) Describe each set and (B) Write down two more elements in each set.

- 1. {Asia, Africa, Europe, ...} _____
- 2. {2, 4, 6, 8, ...} _____
- 3. {Sunday, Monday, Tuesday, ...} _____
- 4. {1, 4, 9, 16, ...} _____

Set A = {whole numbers between 60 and 90}

- 5. List the subset B {multiples of 5} _____
- 6. List the subset C {multiples of 3} _____
- 7. List the subset D {perfect squares} _____
- 8. List the elements that are in both subsets B and C. _____

State whether each of the following statements is true or false.

- 9. {Algeria, Mozambique} \subset {Countries in Africa} _____
- 10. {mango, banana} \subset {fruit} _____
- 11. {volleyball, basketball, football, golf} \subset {team sports} _____
- 12. {potatoes} \subset {carrots} _____

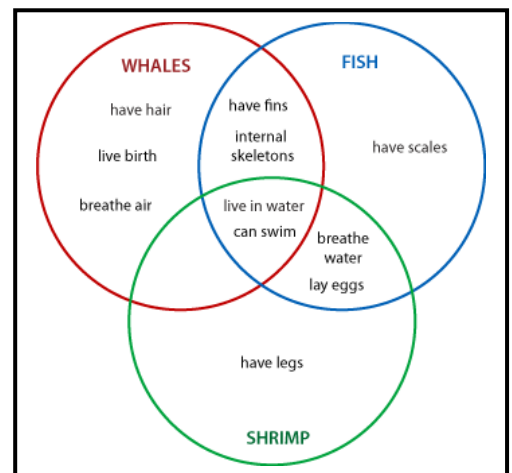
13. Subset W = _____

14. Subset F = _____

15. Subset S = _____

16. What elements are in subsets F and S? _____

17. What elements are common to all 3 subsets? _____



18. Subset {can swim} = _____

19. Subset {have fins} = _____

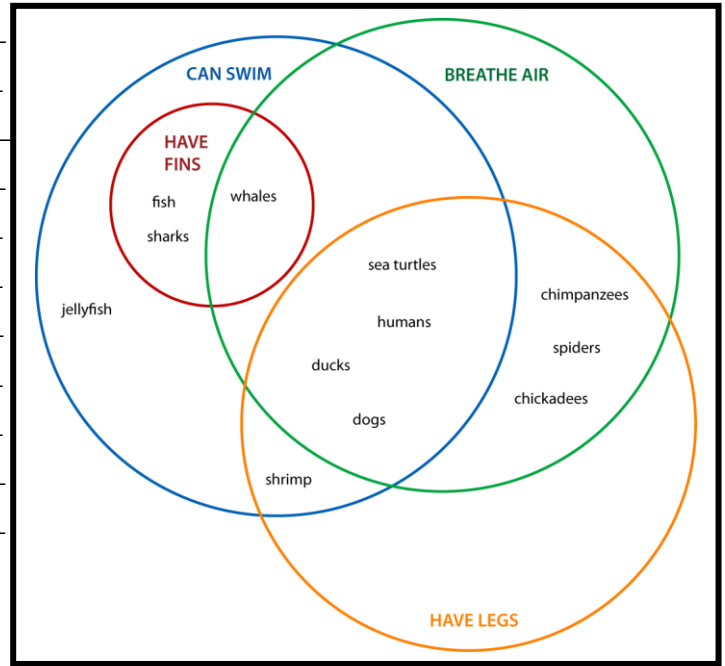
20. Subset {breath air} = _____

21. Is {can swim} \subset {have fins}? _____

22. Is {have fins} \subset {can swim}? _____

23. Is {have fins} \subset {breath air}? _____

24. What animals are in both {can swim} and {breath air}? _____



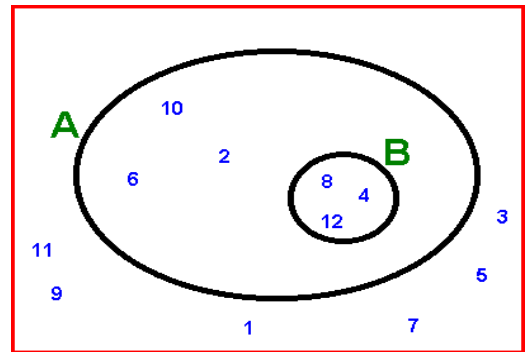
25. What animals are in {can swim} or {breath air}? _____

26. List the elements of subset {A}. _____

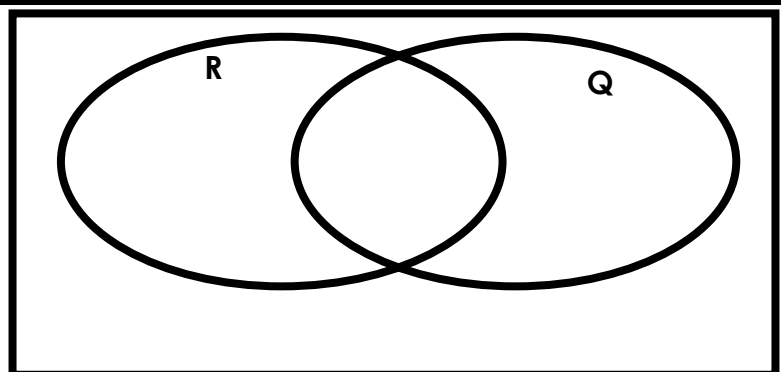
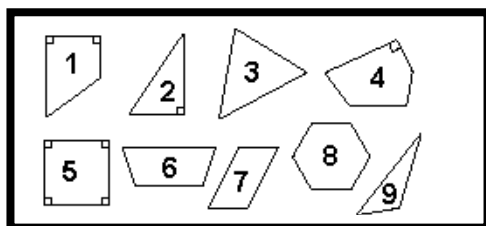
27. List the elements of subset {B}. _____

28. Is {A} \subset {B}? _____

29. Is {B} \subset {A}? _____



30. Complete the Venn diagram.



Set R contains shapes with a right angle (90°).

Set Q contains shapes with four sides.