Write down two more elements in each set.

1. {2, 4, 6, 8, ...} ___ 10, 12 _____

2. {Sunday, Monday, Tuesday, ...} __ Wednesday, Thursday __

3. {1, 4, 9, 16, ...} __ 25 36   (perfect squares) __

Set A = {whole numbers from 1 to 25}

4. List the subset B {multiples of 5} __ {5, 10, 15, 20, 25} __

5. List the subset C {multiples of 3} __ {3, 6, 9, 12, 15, 18, 21, 24} __

6. List the subset D {perfect squares} __ {1, 4, 9, 16, 25} __

7. List the elements that are in both subsets B and C. {15}

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

8. {Mexico, Canada} ⊂ {Countries in Europe} __ false __

9. {mango, banana} ⊂ {fruit} __ true __

10. {volleyball, basketball, football} ⊂ {team sports} __ true __

11. {potatoes} ⊂ {carrots} __ false __

12. Subset W = { hair, live birth, breathe air, have fins, internal skeletons, live in water, can swim }

13. Subset F = { have fins, internal skeletons, live in water, can swim, breathe water, lay eggs, have scales }

14. Subset S = { live in water, can swim, breathe water, lays eggs, have legs }

15. What elements are in subsets F and S? { live in water, can swim, breathe water, lay eggs }

16. What elements are common to all 3 subsets? { live in water can swim }

WHALES   FISH
have hair   have fins
live birth   Internal
               skeletons   have scales
breathe air   live in water
               can swim   breathe
                          water
                          lay eggs

               have legs
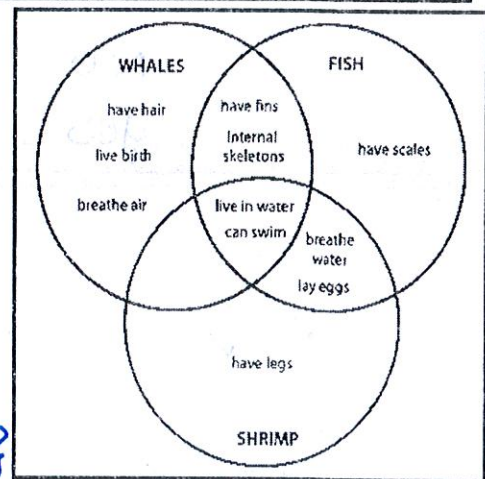
               SHRIMP

17. Subset {can swim}= {jellyfish, fish, sharks, whales, sea turtles, humans, ducks, dogs, shrimp}

18. Subset {have fins} = {fish, sharks, whales}

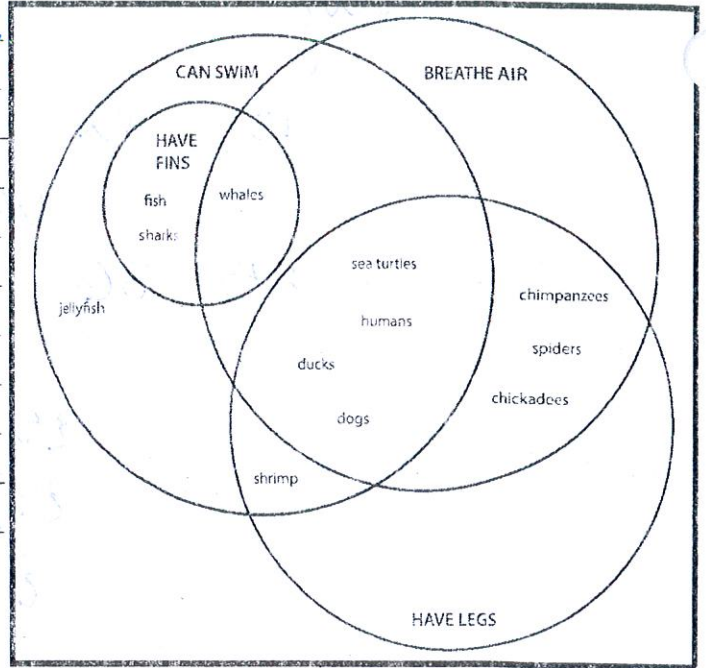19. Subset {breath air} = {whale, sea turtles, humans, ducks, dogs, chimps, spiders, chickadees}

20. Is {can swim} ⊂ {have fins}? ___NO___

21. Is {have fins} ⊂ {can swim}? ___Yes___

22. Is {have fins} ⊂ {breath air}? ___NO___

23. What animals are in both {can swim} and {breath air}? {whales, sea turtles, humans, ducks, dogs}

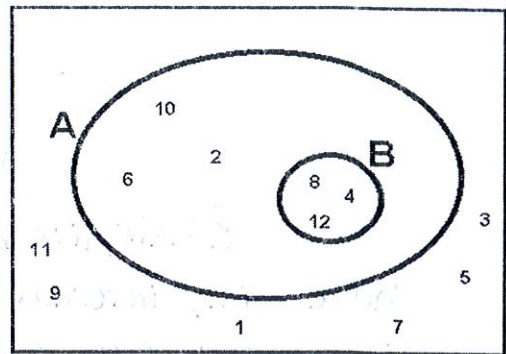24. What animals are in {can swim} or {breath air}? {all elements}

Diagram labels: CAN SWIM, BREATHE AIR, HAVE FINS (fish, whales, sharks), jellyfish, sea turtles, humans, ducks, dogs, shrimp, chimpanzees, spiders, chickadees, HAVE LEGS

25. List the elements of subset {A}. {6, 10, 2, 8, 4, 12}

26. List the elements of subset {B}. {8, 4, 12}

27. Is {A} ⊂ {B}? ___NO___

28. Is {B} ⊂ {A}? ___yes___

A: 10, 6, 2, B: 8, 4, 12; outside: 11, 9, 1, 7, 3, 5

29. Complete the Venn diagram.

Shapes: 1 ✓, 2 ✓, 3, 4 ✓, 5 ✓, 6 ✓, 7 ✓, 8, 9

R: 2, 4   R∩Q: 1, 5   Q: 6, 7
outside: 3 8 9
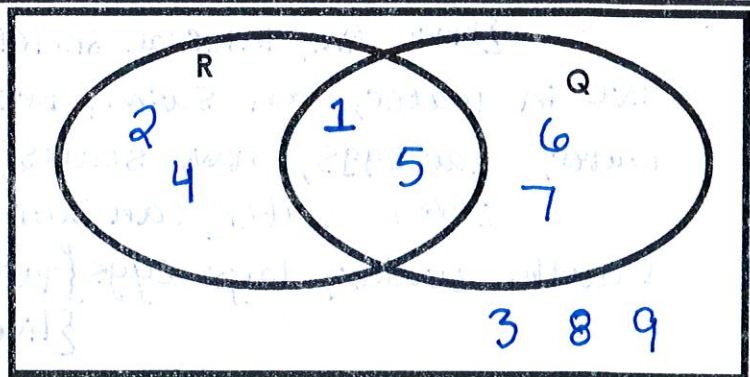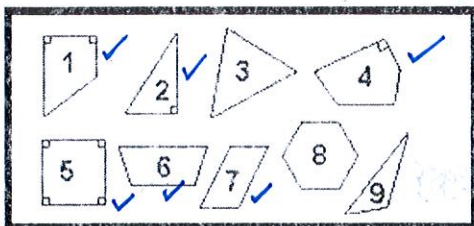
Set R contains shapes with a right angle (90°).
Set Q contains shapes with four sides.