Set Theory & Venn Diagrams WS   Name_____

Given: A = {1, 2}, B = {2, 4, 6}, C = {1, 3, 5, 7} and U = {1, 2, 3, … , 10}

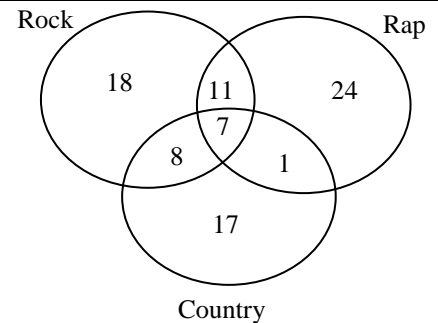1. Find A'   2. |C|

3. C ∪ A   4. A ∩ B

5. A' ∩ C   6. A ⊕ C

7. B – A   8. |B ∪ C|

Given: A = {1, 4}, B = {2, 4, 6}, C = {1, 3, 5} and U = {0, 1, 2, 3, … , 10}

True or False. If false explain why.

9. 2 ∈ A – B

10. A and C are disjoint.

11. 4 ∈ A ∩ B

12. A ⊕ B = {1, 2, 6}

13. B ∪ C = U – {0, 7, 8, 9, 10}

Use the Venn Diagram to answer the following questions.

14. How many total people are represented in the diagram? _____

15. How many people like country? _____

16. How many people like Rock and Country? _____

Use the following information to fill in the Venn Diagram below.

17. 100 people were asked if they liked Math, Science, or Social Studies.

54 like Math
42 like Science
32 like Social Studies

18 like Math and Science
10 like Science and Social Studies
12 like Math and Social Studies

6 like all three subjects