

PART 1 MODULE 1

PRACTICE EXERCISES

1 – 17: Decide whether each statement is true or false.

Let $U = \{ 1, 2, 3, 4, 5, 6, 7 \}$ $S = \{1, 2, 4, 7\}$

$T = \{1, 2, 4, 5, 6, 7\}$ $V = \{4, 5, 6\}$

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|--|------------------------------|----------------------------|--------------------|--------------------|
| 1. $S \subset T$ | 2. $n(S) = 7$ | 3. $4 \notin V$ | 4. $T \subseteq V$ | 5. $S \subseteq T$ |
| 6. $\{2, 4, 6\} = \{x x \text{ is an even number}\}$ | 7. $T \subseteq \{ \}$ | 8. $7 \in T$ | | |
| 9. T has 36 subsets | 10. V has 7 proper subsets | 11. $\{ \} \subseteq V$ | | |
| 12. $V = \{x x > 3\}$ | 13. $V = \{1, 2, 3\}$ | 14. $\{7, 4, 2, 1\} = S$ | | |
| 15. $\{1\} \subset T$ | 16. $\{1\} \subseteq T$ | 17. $V \subseteq \{5, 6\}$ | | |

ANSWERS TO PRACTICE EXERCISES

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|----------|-----------|-----------|----------|----------|
| 1. True | 2. False | 3. False | 4. False | 5. True |
| 6. True | 7. False | 8. True | 9. False | 10. True |
| 11. True | 12. False | 13. False | 14. True | 15. True |
| 16. True | 17. False | | | |