Chapter 3 Summary

	Section Objectives	How does it apply to you?
Section 1	Use a union of two sets to represent *or*.	Using a set diagram to visualize a statement can help you recognize what is in one set *or* in another set. *(See Example 1.)*
	Use an intersection of two sets to represent *and*.	Using a set diagram to visualize a statement can help you recognize what is in one set *and* in another set. *(See Example 3.)*
	Use the complement of a set to represent *not*.	Using a set diagram to visualize a statement can help you recognize what is not in a set. *(See Examples 5 and 6.)*
Section 2	Analyze statements that have the term *all*.	Using a set diagram to analyze a statement can help you recognize what is and is not being said in the statement. *(See Examples 1 and 2.)*
	Analyze statements that have the term *some* or *many*.	Using a set diagram to analyze a statement can help you make other statements. *(See Examples 3 and 4.)*
	Analyze negations of statements.	Using a set diagram to analyze a statement can help you negate the statement. *(See Examples 5 and 6.)*
Section 3	Use deductive reasoning with syllogisms.	Using a set diagram to visualize why syllogisms are valid can help you draw other conclusions. *(See Examples 1 and 2.)*
	Know how a deductive reasoning system is created.	Logical systems help you understand how different branches of mathematics were formed. *(See Examples 3 and 4.)*
	Use inductive reasoning.	You need to be able to make logical conclusions based on repeated patterns. *(See Examples 5 and 6.)*
Section 4	Recognize deductive fallacies.	You need to be able to distinguish valid logic from invalid logic. *(See Examples 1 and 2.)*
	Use set diagrams to detect fallacies.	Using a set diagram can help you determine whether statements are valid or invalid. *(See Examples 3 and 4.)*
	Recognize fallacies in advertisements.	You need to be able to distinguish between valid and invalid statements in advertising. *(See Examples 5 and 6.)*