

Chapter 10 Summary

Section Objectives

How does it apply to you?

Section 1	Compare a person's weight, height, and body fat percentage.		You can identify a healthy weight for a given height and calculate a person's body fat percentage given his or her measurements. <i>(See Examples 1 and 2.)</i>
	Interpret and use a person's heart rate and metabolism.		Use your target heart rate to maximize exercise and your BMR to manage your weight. <i>(See Examples 3 and 4.)</i>
	Determine factors for cardiovascular health.		Understand the indicators of a healthy cardiovascular system, such as exercise, cholesterol, triglycerides, insulin, and glucose. <i>(See Examples 5 and 6.)</i>
Section 2	Analyze winning times and heights in the Summer Olympics.		Olympic records are consistently broken over time as athletes refine techniques and technology improves. <i>(See Examples 1 and 2.)</i>
	Analyze winning times in the Winter Olympics.		Olympic records are consistently broken over time as athletes refine techniques and technology improves. <i>(See Examples 3 and 4.)</i>
	Understand Olympic scoring.		Understand that the scores for some events are based on subjective decisions by judges. <i>(See Examples 5 and 6.)</i>
Section 3	Use mathematics to analyze baseball statistics.		You can determine which teams and players are better in various categories. <i>(See Examples 1 and 2.)</i>
	Use mathematics to analyze football statistics.		You can determine a quarterback's passer rating and the probability of winning depending on the score and the time remaining in the game. <i>(See Examples 3 and 4.)</i>
	Use mathematics to analyze statistics in other professional sports.		You can determine how likely it is for a top-seeded tennis player to win a tennis match, or how likely it is for a bowler to throw a split. <i>(See Examples 5 and 6.)</i>
Section 4	Use mathematics to analyze hiking and mountain climbing.		You can exert the same amount of energy walking on a steep grade as you can running on a lesser grade. As elevation increases, so does UV radiation exposure. <i>(See Examples 1 and 2.)</i>
	Use mathematics to analyze kayaking and sailing.		You should only kayak or canoe when the water level is high enough. Sail designs have evolved over the years to allow ships to travel in any direction. <i>(See Examples 3 and 4.)</i>
	Use mathematics to analyze bicycling and cross-country skiing.		Bicycling can be rigorous exercise that elevates your heart rate. Cross-country skiing uses more energy than most other outdoor sports. <i>(See Examples 5 and 6.)</i>