Answer Key

Lesson 2.3

Practice Level C

1. Dr. Klein will operate with precision today; detachment **2.** If we don't make any stops, then we should be in time to see the kickoff; syllogism

3. If a player receives two technical fouls in one game, then the player has to sit out the following game; syllogism **4.** The police will not hold the accused suspect; detachment **5.** There is significant danger to the firefighters; detachment

6. If the newspaper does not receive the order for the advertisement soon enough, then the store will lose money; syllogism **7.** If the company contributes $20,000 to the charity, then it will go into a lower tax bracket; syllogism **8.** You should set the parking brake; detachment **9.** The result is the perfect square; detachment **10.** If there is a large, rapid decrease in air temperature, then the ice on a lake may not be safe to walk on for up to 24 hours; syllogism **11.** The ball will float in water; detachment **12.** The car will not be able to stop in time to keep from hitting the other vehicle; detachment **13.** inductive; the conclusion is a conjecture based on your specific results from the first three weeks. **14.** deductive; you calculated the actual slope using the slope formula.

15. inductive; you are making a conjecture based on your normal spending habits.

16. inductive; you are making a conjecture based on specific trials.

17. *Sample answer:* The area of one circle is one-fourth the area of another circle with a radius that is twice as long.

18. $A_1 = \pi r^2$, $A_2 = \pi(2r)^2 = 4\pi r^2$, so $A_1 = \frac{1}{4} A_2$

19. Either a catch platform must be installed or each worker must wear a safety belt attached to an approved lifeline, because the eave is over 16 feet high and the pitch is greater than 4 to 12.

20. No special safety precautions are needed, because the eave is not over 20 feet high and the pitch is not over 4 to 12.