LESSON
2.5

NAME _____ DATE _____

Lesson 2.5

# Application Lesson Opener

**For use with pages 102–107**

The grading scale at Randy's school is given below.

| *Percent* | 90-100 | 80-89 | 70-79 | 60-69 | Below 60 |
|-----------|--------|-------|-------|-------|----------|
| *Letter Grade* | A | B | C | D | F |

Teachers can also add a "+" to the letter grade for the highest two percents for any letter grade and a "−" to the letter grade for the lowest two percents.

Randy used the following reasoning to conclude that he earned a B− on his last math test.

I earned an 81% on my last math test. Since 81 is less than 89 but greater than 80, this is between 80 and 89. By definition of a B, I earned a B. Since 80 and 81 are the least two percents, my grade is one of the least two percents that can earn a B. By definition of "−", I earned a B−.

Use Randy's reasoning to complete the two-column proof. For each of Randy's statements listed on the left, his reasoning behind making that statement should be listed on the right.

| **Statements** | **Reasoning** |
|----------------|---------------|
| **1.** Randy earned an 81% on his last math test. | **1.** Given |
| **2.** _____  _____ | **2.** 81 is less than 89 but greater than 80 |
| **3.** Randy earned a B on the test. | **3.** _____ |
| **4.** Randy's grade is one of the lowest two percents that can earn a B. | **4.** _____ |
| **5.** Randy earned a B−. | **5.** _____ |