

### Olympic Scoring

In both the Summer Olympics and the Winter Olympics, the scores for some events are based on subjective decisions by judges. Some examples are gymnastics, diving, figure skating, and ski jumping. Example 5 describes the judging system for diving.

#### EXAMPLE 5 Analyzing Olympic Scoring

For a women's diving event, a panel of seven judges evaluate a dive. Each judge awards a score between 0 and 10, as shown in the table. The degree of difficulty of the dive is 1.8. To determine the diver's final score, discard the two highest and two lowest scores awarded by the judges. Then add the remaining scores and multiply by the degree of difficulty. What is the diver's score? Is this a good score?



Judge	Russia	China	Mexico	Germany	Italy	Japan	Brazil
Score	7.5	8.0	6.5	8.5	7.0	7.5	7.0

#### SOLUTION

Of the 7 scores, discard 8.5, 8.0, 7.0, and 6.5.

7.5   ~~8.0~~   ~~6.5~~   ~~8.5~~   ~~7.0~~   7.5   7.0  
           High    Low    High    Low

Add the remaining scores and multiply by the degree of difficulty.

$$1.8(7.5 + 7.5 + 7.0) = 1.8(22) = 39.6$$

The diver's score is 39.6. This is not particularly good.

#### ✓ Checkpoint

Help at [Math.andYOU.com](http://Math.andYOU.com)



Watch videos of five dives at *Math.andYou.com*. Award a score between 0 and 10 to each dive. (You must award a whole number or a half, as in 6.0 or 8.5. You cannot award a score like 8.3.) Use the following criteria when awarding a score.

- Rate the approach, the height above the diving board, and the acrobatics.
- Toes pointed = good
- No splash = high points
- Diver straight up and down on entry into water = good
- Feet touching = good
- Ripples = lower points

