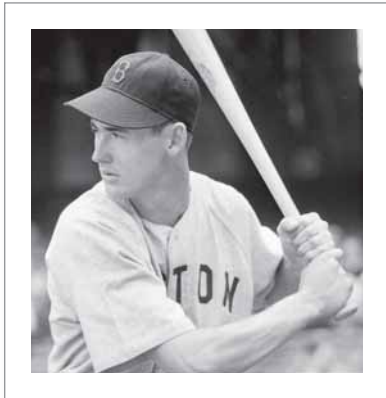


EXAMPLE 2 Analyzing the Strike Zone



Ted Williams was voted the American League Most Valuable Player twice. He led the league in batting 6 times and had a career batting average of .344.

The strike zone is an imaginary box above home plate. The dimensions of the strike zone vary according to the batter's height and stance. It is defined as "that area over home plate the upper limit of which is a horizontal line at the midpoint between the top of the shoulders and the top of the uniform pants, and the lower level is a line at the hollow beneath the kneecap."

In his book *The Science of Hitting*, Ted Williams figured that for a man of his height, the official strike zone would be 7 baseballs wide by 11 baseballs high, as shown. The numbers inside the circles are Williams's estimates of his batting average on balls pitched in that part of the strike zone.

Which part of the strike zone did Williams consider his weakest? Explain your reasoning.



SOLUTION



Ted Williams was a left-handed batter. The lowest batting averages are in the lower right corner of the diagram. So, Williams believed that his weakest area was farthest from his body and down, as shown.

This might not be true for all batters, but Williams must have believed that when he had to extend his arms downward, he was not able to obtain the power he wanted.

✓ Checkpoint

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Which part of the strike zone did Williams consider his strongest? Explain.