

## Lesson Plan

### Place Value at the Plate

**Book:** *Mookie Betts: Baseball Star*

**Series:** Biggest Names in Sports

**Level:** Navigator

### Objective

To help students apply knowledge of place value to round decimals to the thousandth place and to determine which of two decimals is larger.

### Supplies

- *Mookie Betts: Baseball Star* book
- Place Value at the Plate worksheet (attached)

### Before the Activity

Read *Mookie Betts: Baseball Star* out loud to students, or assign it to students to read on their own. Print a Place Value at the Plate worksheet for each student.

### Activity

Mookie Betts is known for his fantastic batting ability. In fact, in 2018, Betts won the 2018 MLB batting title with a .346 batting average. This made him the first Red Sox player to win this title since 2003. A batting average is calculated by dividing a player's number of hits by the player's total number of at bats. Batting averages are usually written out to three decimal places, or the thousandths place. In the major leagues, few players can get batting averages above .300.

Give each students a Place Value at the Plate worksheet. Students should calculate the batting average for each player, rounding each answer to three decimal places. Remind students to use the following rules when rounding:

1. Look at the number that's one decimal place to the right of the place you're rounding to (in this case, the number that's one decimal place to the right of the thousandths place).
2. If this number is 5 or higher, round up. Increase the number in the place you're rounding to (here, the thousandths place) by one.
3. If this number is 4 or lower, round down. The number in the place you're rounding to (here, the thousandths place) stays the same.

**Evaluation**

Use the attached answer key to give students 1 point for each correct answer, for up to 8 points.

**Standards**

This lesson may be used to address the Common Core State Standards' mathematics standards, grade 5 (CCSS.MATH.CONTENT.5.NBT.A.3; CCSS.MATH.CONTENT.5.NBT.A.4).

## Place Value at the Plate

Calculate the batting average for each of the following players. Remember to round each decimal to the thousandths place.

1. Milo Milano had 162 hits this season. If Milo had 620 total at bats, what was his batting average?
2. Andras Vinsky also had 620 at bats this season. If Andras had 200 hits, what was his batting average?
3. Noah Svoboda had 550 at bats this season. If Noah had 147 hits, what was his batting average?
4. Javier Delgado had 191 hits this season. If Javier had 550 at bats, what was his batting average?
5. Bjorn Lindgren had 178 hits this season. If Bjorn had 580 at bats, what was his batting average?
6. Which players had batting averages greater than .300?
7. Who had a higher batting average, Milo Milano or Noah Svoboda?
8. Who had a higher batting average, Andras Vinsky or Bjorn Lindgren?

## Place Value at the Plate **Answer Key**

Calculate the batting average for each of the following players. Remember to round each decimal to the thousandths place.

1. Milo Milano had 162 hits this season. If Milo had 620 total at bats, what was his batting average?

$$162 / 620 = 0.26129032$$

round down to .261

2. Andras Vinsky also had 620 at bats this season. If Andras had 200 hits, what was his batting average?

$$200 / 620 = 0.32258065$$

round up to .323

3. Noah Svoboda had 550 at bats this season. If Noah had 147 hits, what was his batting average?

$$147 / 550 = 0.26727273$$

round down to .267

4. Javier Delgado had 191 hits this season. If Javier had 550 at bats, what was his batting average?

$$191 / 550 = 0.34727273$$

round down to .347

5. Bjorn Lindgren had 178 hits this season. If Bjorn had 580 at bats, what was his batting average?

$$178 / 580 = 0.30689655$$

round up to .307

6. Which players had batting averages greater than .300?

3 players: Andras Vinsky, Javier Delgado, and Bjorn Lindgren

7. Who had a higher batting average, Milo Milano or Noah Svoboda?

Noah Svoboda

8. Who had a higher batting average, Andras Vinsky or Bjorn Lindgren?

Andras Vinsky