

## Baseball Exercise:

### Directions

A friend of yours plays baseball and would like for you to write a program to calculate his batting average. So far this season his stats are as follows:

Stat	Amount
Hits	27
Number of at Bats	80

He would like the average rounded to the nearest thousandth and displayed as an integer like the following examples:

Average	Rounded to the Nearest Thousandth	Average Converted to Integer
.32925	.330	330
.26672	.267	267
.31111	.311	311

Use the following instructions in your implementation:

1. Create 4 variables named hits, atBats, battingAvg, and roundedAvg. The variables hits, atBats, and roundedAvg are of type int and battingAvg is of type double. Initialize hits to 27, atBats to 80, battingAvg to zero, and roundedAvg to zero.
2. Calculate his batting average using the following formula:

battingAvg equals hits divided by atBats

\*Since both hits and atBats are integers you will need to **cast** one of them to a double before doing the division.

3. To round to the nearest thousandth use the following formula:

battingAvg equals (battingAvg + 0.0005)      \***option:** you can also use += operator

4. To convert the rounded average to an integer do the following:

- multiply battingAvg by 1000 and store the answer back into battingAvg

- **cast** battingAvg to an int and store the result in roundedAvg

5. The program's output should be in the same format as the Sample Run below.

**Sample Run:**

```
Hits = 27  
At Bats = 80  
-----  
Batting Average = .338
```