

# Baseball by Numbers

People who watch baseball love to keep score. Most people also like to know how their favorite team or player is doing from one season to the next. If you want to do this properly, you must have the figures (statistics) to show how they have performed and know what the figures mean.

The Toronto Blue Jays play all of their home games at Rogers Centre in Toronto. The Blue Jays won the World Series in 1992 and 1993.

## Baseball Worksheet 2

Statistics are a very important part of baseball, many say it is a "game of numbers." There are many statistics in baseball, but on this worksheet we will focus on one of the most important: BATTING AVERAGE.

Batting Average (AVG for short) is a percentage that shows you how successful players are at getting hits. To get a player's batting average, you divide the number of "hits" by the number of times at bat or "at bats." Batting average is shown as a proportion - a 1.000 batting average would mean that a player gets a hit every time he or she has a turn at bat. For example, three hits in three at bats (3 divided by 3) would equal a batting average of 1.000. A batting average of .500 would mean that a player gets one hit in every two at bats (1 divided by 2). In baseball, a batting average above .300 (3 hits in every 10 at bats or 3 divided by 10) is very good. Note: For AVG, always round to the nearest hundredth.

Carlos Delgado of the New York Mets



### THE HIGHER THE AVG, THE BETTER THE BATTER.

Carlos Delgado is the first baseman for the New York Mets and one of baseball's greatest home run hitters. Let's see how his batting average was from 2000 to 2006.

Baseball is America's #1 national pastime

Year	At bat (AB)	Hits (H)	Batting Average (AVG)
2000	569	196	.344
2001	574	160	.279
2002	505	140	_____
2003	570	_____	.302
2004	458	123	.269
2005	_____	157	.301
2006	524	139	.265

$$\frac{196}{569} = .344$$

Figure 3



### Exercise 1

In the 2000 season, Carlos collected 196 hits in 569 at bats. So his batting average was .344 (196 divided by 569).

(A) How do you write .344 as a percentage?

CIRCLE ANSWER

- a) 3.44%   b) 34.4%   c) 344%

A   B   C

Now use Figure 3 to help you answer the 3 questions on the next page. When you are done, you can use Carlos' baseball card to check your work.



The last MLB player to have more than a .400 batting average was Ted Williams who batted .406 in 1941

### Exercise 1 (cont.)

(b) In 2002, Carlos had 505 at bats and 140 hits. What was his batting average for the year? (Round to the nearest hundredth)


.....

(c) In 2003, he had 570 at bats and ended up with a batting average of .302. How many hits did he have?

.....

(d) Carlos finished 2005 with a batting average of .301 and 157 hits. How many at bats did he have?

.....




**188**  
**Carlos Delgado/1B**  
 Height: 6'3" Weight: 240  
 Bats: L Throws: R  
 Born: 6/25/72 Aguadilla, PR

Delgado became just the ninth slugger in Major League Baseball history to hit 30 or more home runs in nine straight seasons with Florida in 2005. He also reached the 100-RBI plateau for the seventh time in his career.

YR	TEAM	AVG	G	AB	R	H	2B	3B	HR	RBI	SB
93	BLUE JAYS	.000	2	1	0	0	0	0	0	0	0
94	BLUE JAYS	.215	43	130	17	28	2	0	9	24	1
95	BLUE JAYS	.165	37	91	7	15	3	0	3	11	0
96	BLUE JAYS	.270	138	488	68	132	28	2	25	92	0
97	BLUE JAYS	.262	153	519	79	136	42	3	30	91	0
98	BLUE JAYS	.292	142	530	94	155	43	1	38	115	3
99	BLUE JAYS	.272	152	573	113	156	39	0	44	134	1
00	BLUE JAYS	.344	162	569	115	196	57	1	41	137	0
01	BLUE JAYS	.279	162	574	102	160	31	1	39	102	3
02	BLUE JAYS	.277	143	505	103	140	34	2	33	108	1
03	BLUE JAYS	.302	161	570	117	172	38	1	42	145	0
04	BLUE JAYS	.269	128	458	74	123	26	0	32	99	0
05	MARLINS	.301	144	521	81	157	41	3	33	115	0
<b>13-YR TOTALS</b>		<b>.284</b>	<b>1567</b>	<b>5529</b>	<b>970</b>	<b>1570</b>	<b>384</b>	<b>14</b>	<b>369</b>	<b>1173</b>	<b>9</b>

UPPER DECK, MLB, CSVR  
 ©2006 UDIC, 985 Trade Drive, North Las Vegas, NV 89130. All rights reserved. Printed in the USA. Major League Baseball trademarks and copyrights are used with permission of Major League Baseball Properties, Inc. MLB.com. ©MLBPA. Official Licensee of Major League Baseball Players Association. Visit your favorite players at www.MLBPLAYERS.com.



**484**  
**Vernon Wells/OF**  
 Height: 6'1" Weight: 225  
 Bats: R Throws: R  
 Born: 12/8/78 Shreveport, LA

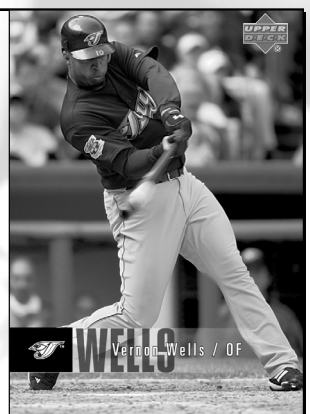
Wells has been Toronto's center fielder for the past four full seasons and has developed into one of the best players at his position. He did not commit an error in 155 games during the 2005 season, posting a perfect 1.000 fielding percentage and easily winning his second consecutive American League Gold Glove Award. The right-handed slugger led the Blue Jays with 28 home runs and 97 RBI and will once again look to lead the promising young Toronto offense in 2006.

YR	TEAM	AVG	G	AB	R	H	2B	3B	HR	RBI	SB
99	BLUE JAYS	.261	24	88	8	23	5	0	1	8	1
00	BLUE JAYS	.000	3	2	0	0	0	0	0	0	0
01	BLUE JAYS	.313	30	96	14	30	8	4	23	100	9
02	BLUE JAYS	.275	159	608	87	167	34	4	23	100	9
03	BLUE JAYS	.317	161	678	118	215	49	5	33	117	4
04	BLUE JAYS	.272	134	536	82	146	34	2	23	67	9
05	BLUE JAYS	.269	156	620	78	167	30	3	28	97	8
<b>7-YR TOTALS</b>		<b>.285</b>	<b>667</b>	<b>2628</b>	<b>387</b>	<b>748</b>	<b>160</b>	<b>14</b>	<b>109</b>	<b>395</b>	<b>36</b>

UPPER DECK, MLB, BPHC  
 ©2006 UDIC, 985 Trade Drive, North Las Vegas, NV 89130. All rights reserved. Printed in the USA. Major League Baseball trademarks and copyrights are used with permission of Major League Baseball Properties, Inc. MLB.com. ©MLBPA. Official Licensee of Major League Baseball Players Association. Visit your favorite players at www.MLBPLAYERS.com.

### Batting Average Check

Now pretend that you are a baseball manager and you think that you would like to get Vernon Wells to play for your team. You will want to have an idea of his past performance, so you should look very closely at his batting average in previous years.



### Exercise 2

(a) What was Vernon's worst year? What was his AVG that year? (Don't forget: the higher the AVG, the better the batter.)

.....

(b) How many hits did Vernon get in his best year? What year was his best?

.....

(c) Now see if you can calculate Vernon's total batting average from 1999 to 2005. (Round to the nearest hundredth)

.....

