

Baseball Stats Detective

Batting average = hits ÷ at-bats, written to three decimal places. Crack each case and show your work!

Name _____

Date _____

DETECTIVE'S STAT LAB

H

hits

AB

at-bats

 $H \div AB$

 batting
average

.300

 3 hits in
10 at-bats

.xxx

 round to the
thousandths


ROOKIE

- 1** Ace gets **5 hits** in **20 at-bats**. What is his batting average?

WORK SPACE

_____ AVG

ROOKIE

- 2** Bo gets **9 hits** in **30 at-bats**. What is her batting average?

WORK SPACE

_____ AVG

STARTER

- 3** Cy gets **7 hits** in **25 at-bats**. What is his batting average?

WORK SPACE

_____ AVG

STARTER

- 4** Dee is batting **.400** after **40 at-bats**. How many hits does she have?

WORK SPACE

_____ hits

PRO

- 5** Eli goes **2-for-4**, **1-for-3** and **3-for-5** in three games. (2-for-4 means 2 hits in 4 at-bats.) What is his average for all three games?

WORK SPACE

_____ AVG

PRO

- 6** Fin has **12 hits** in **40 at-bats**. Gus has **14 hits** in **50**. Who has the higher average, and by how much?

WORK SPACE

_____ by _____

ALL-STAR

- 7** Hal has **5 hits** in **16 at-bats**. Find his batting average, rounded to the **nearest thousandth**.

WORK SPACE

_____ AVG

CHALLENGE ★

- 8** Ivy has **18 hits** in **60 at-bats** (.300). How many hits does she need in her **next 15 at-bats** to raise her average to **.320**?

WORK SPACE

_____ hits

A The Case of the Missing Stats

Rain smudged the Comets' box score! Find the missing numbers.

PLAYER	AB	H	AVG
Ace Rivera	20	6	
Bo Kim	25		.320
Cy Lopez		9	.375
Dee Park	16	4	
Team total			

- 1 Use AB, H and AVG to fill in each **blank box**. Hint: hits = $AVG \times AB$, and $AB = \text{hits} \div AVG$.
- 2 Fill in the **team total** row. Round the team AVG to the nearest thousandth.
- 3 Which player has the **highest** average?

- 4 How many hits would Dee need in her 16 at-bats to bat **.375**?

B Who's Who? Logic Puzzle

Jo, Max and Rae bat **.250**, **.300** and **.350**, but who is who? Use the clues. Mark **X** for "no" and **•** for "yes" in the grid.

	.250	.300	.350
Jo			
Max			
Rae			

- 1 Max's average is **higher** than Jo's.
- 2 Rae does **not** have the highest average.
- 3 Jo's average is **not** .250.

Jo: _____ Max: _____ Rae: _____

C Quick Stat Checks

Three short cases to close out the file.

- 1 Kim batted **.250** in **32** at-bats. How many hits did she get?

WORK SPACE

_____ hits

- 2 The Otters got **27 hits** in **90 at-bats**. What is the team batting average?

WORK SPACE

_____ AVG

- 3 Max wants to bat **.300**. He will have **40** at-bats. How many hits does he need?

WORK SPACE

_____ hits

Answer Key (for teachers & parents)

Answers for **Baseball Stats Detective**, with the work shown where it helps. Print pages 1 and 2 for students, and keep this page for checking.

Page 1 Problems

- .250** ($5 \div 20$)
- .300** ($9 \div 30$)
- .280** ($7 \div 25$)
- 16 hits** ($.400 \times 40$)
- .500** ($6 \div 12$)
- Fin, by .020** (.300 vs. .280)
- .313** ($5 \div 16 = .3125$)
- 6 hits** ($24 \div 75 = .320$)

Quick score

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A • Missing Stats	_____ / 4
B • Who's Who	_____ / 3
C • Quick Checks	_____ / 3
Total	_____ / 18

A • Missing Stats

- Ace .300; Bo 8 H; Cy 24 AB; Dee .250**
- Team: 85 AB, 27 H, .318** ($27 \div 85 = .3176$)
- Cy Lopez** (.375)
- 6 hits** ($.375 \times 16$)

Skills practiced

- Division
- Decimals to thousandths
- Rounding
- Working backward
- Logical reasoning

Teaching tip: Remind students that batting averages are written without the leading zero (.300 means 0.300), and to round to three places at the end, not along the way.

B • Who's Who

- Jo .300**
- Max .350**
- Rae .250**

C • Quick Checks

- 8 hits** ($.250 \times 32$)
- .300** ($27 \div 90$)
- 12 hits** ($.300 \times 40$)