

Hockey Integer Shootout

Add and subtract integers, use absolute value for goal margins, and read plus-minus like a real hockey card. All teams are made up. Show your work!

Name _____

Date _____

INTEGER TOOLKIT

 $+$

 add positive
or negative

 $-$

 subtract – or
find difference

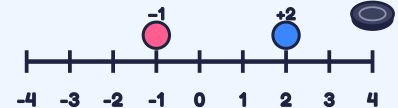
 $|n|$

 absolute value
(distance from 0)

 $<>$

 compare which
integer is greater

GOAL DIFFERENTIAL



ROOKIE

- 1 The **Otters** scored **3** goals and allowed **5**. What is their score differential (goals scored – goals allowed)?

WORK SPACE

ROOKIE

- 2 The **Frost Foxes** lost by **4** goals. Their differential is **–4**. What is the **absolute value** of that differential?

WORK SPACE

_____ goals

STARTER

- 3 Which is greater: **–3** or **–7**? Write a true comparison using **<** or **>**.

WORK SPACE

STARTER

- 4 Skater **Mira Finch** was on the ice for **2** goals scored by her team and **5** goals allowed. What is her **plus-minus**?

WORK SPACE

PRO

- 5 Period differentials for the **Comets**: 1st **+2**, 2nd **–1**, 3rd **+3**. What is their final differential for the game?

WORK SPACE

PRO

- 6 Goal differentials over 5 games: **+3**, **–2**, **+1**, **–4**, **+2**. What is the **sum** of these five integers?

WORK SPACE

ALL-STAR

- 7 Goalie **Kai Moss**: team scored **2**, **1**, **4** and allowed **1**, **3**, **0** in 3 games. Find each game's differential, then the **sum**.

WORK SPACE

sum _____

CHALLENGE ★

- 8 The Otters have a season differential of **+4**. Next two games: **+3** and then **X**. What is the **smallest integer X** that brings them to at least **+10**?

WORK SPACE

A Number Line Shootout

Here are four made-up teams' game differentials. Plot them, then answer.

TEAM	DIFF
Otters	-3
Comets	+5
Frost Foxes	-1
Blizzards	+2

Plot each team's differential below (use dots)



- Plot a filled dot for each team's differential on the number line.
- Which team is farthest from 0? What is that absolute value?
- How many units apart are the Otters (-3) and the Comets (+5)?
- Order the four differentials from least to greatest.

B Plus-Minus Card

Complete the Otters' plus-minus column, then compare.

PLAYER	GF	GA	+/-
Riley Quill	4	1	
Sam Ortega	2	5	
Jules Park	0	0	
Yen Cho	6	2	
Ash Rivera	3	7	

- Fill in each player's +/- in the blank column.
- Who has the best (highest) plus-minus?
- Who has the worst (lowest) plus-minus?
- What is the sum of all five plus-minus values?

Plus-minus = goals scored by your team while you are on the ice (GF) minus goals allowed (GA). Made-up Otters skaters only.

C Multi-Step Ice Time

Keep a careful running total. Negatives matter!

- In a shootout drill, each make is +1 and each miss is -1. Tess shoots: make, miss, make, make, miss, make, miss, make. What is her final score?

WORK SPACE

- A power-play unit starts at 0. Events: +2, -1, +1, -3, +2. After which event (1st-5th) does their running total first go negative?

WORK SPACE

- Penalty minutes: Otters took 2, 2, 5, 2. Comets took 2, 5, 10. Find Otters - Comets as an integer.

WORK SPACE

Answer Key (for teachers & parents)

Answers for **Hockey Integer Shootout**, with the work shown where it helps. Print pages 1 and 2 for students, and keep this page for checking.

Page 1 Problems

1. **-2** ($3 - 5$)
2. **4 goals** ($|-4| = 4$)
3. **-3 > -7** (-3 is closer to 0)
4. **-3** ($2 - 5$)
5. **+4** ($2 + (-1) + 3$)
6. **0** ($3 - 2 + 1 - 4 + 2$)
7. **sum +3** ($1 + (-2) + 4$)
8. **3** ($+4 + 3 + X \geq 10$)

A • Number Line Shootout

1. **Dots at** $-3, +5, -1, +2$
2. **Comets, 5** ($|+5| = 5$)
3. **8 units** ($|5 - (-3)|$)
4. **-3, -1, +2, +5**

B • Plus-Minus Card

1. **+/- column:** $+3, -3, 0, +4, -4$
2. **Yen Cho** ($+4$)
3. **Ash Rivera** (-4)
4. **0** ($3 - 3 + 0 + 4 - 4$)

C • Multi-Step Ice Time

1. **+2** (5 makes -3 misses)
2. **4th event** (running: 2, 1, 2, -1 , 1)
3. **-6 min** ($11 - 17$)

Quick score

Page 1 problems	_____ / 8
A • Number Line Shootout	_____ / 4
B • Plus-Minus Card	_____ / 4
C • Multi-Step Ice Time	_____ / 3
Total	_____ / 19

Skills practiced

- Integers
- Absolute value
- Number line
- Comparing integers
- Plus-minus
- Multi-step problems

Teaching tip: Remind students that absolute value is distance from zero on the number line – always non-negative. For plus-minus, $GF - GA$ is just another integer subtraction.