

# ❄️ ■ POLAR MATH ADVENTURE: THE SUB-ZERO CHALLENGE! ■

*Mastering Negative Numbers, Temperatures, Sea Depths & Number Lines!*

Hero Mathlete: \_\_\_\_\_

Date: \_\_\_\_\_

Score Goal: \_\_\_\_ / 30

## ■ PROFESSOR FREEZY'S TOP SECRET NEGATIVE NUMBER RULES:

1. **Zero (0)** sits right in the middle! It is neither positive (+) nor negative (-).
2. Numbers below zero are **Negative (-1, -2, -3...)**. The further left you go, the COLDEST & SMALLEST it gets!
3. **Tricky Trap:** -10 is actually LOWER (colder) than -2! Imagine wearing 10 coats at -10°C!

## SECTION 1: THE CHILLY NUMBER LINE ADVENTURE ❄️ ■

### Question 1: Barnaby's Super Sneeze!

Barnaby the Bear woke up in his ice cave at  $-4^{\circ}\text{C}$ . He sneezed so hard that the temperature dropped by another  $5^{\circ}\text{C}$ ! What is the new freezing temperature inside his cave?

■ **Silly Math Joke:** Why don't polar bears wear shoes? Because they have bear feet!

🗒️ ■ Write your answer & show your silly thinking below:

### Question 2: Professor Freezy's Broken Number Line

Help Professor Freezy fill in the missing numbers on his frozen number line before his marker freezes into an popsicle!

a) -8, -6, \_\_\_\_, -2, 0, \_\_\_\_, 4

b) \_\_\_\_, -15, -10, -5, \_\_\_\_, 5, 10

c) 3, 2, 1, 0, \_\_\_\_, -2, \_\_\_\_

🗒️ ■ Write your answer & show your silly thinking below:

## SECTION 2: THERMOMETER MADNESS & ICE CREAM MELTS ■

### Question 3: Penny's Fish Ice Cream Crisis

Penny the Penguin bought a fish-flavored ice cream at  $-12^{\circ}\text{C}$ . She left it in the sun, and the temperature rose by  $15^{\circ}\text{C}$ .

- 1) What is the new temperature of the ice cream?
- 2) Is her ice cream above  $0^{\circ}\text{C}$  now? (Did it melt into fish soup?)

■ **Silly Math Joke:** What does a penguin eat for lunch? Fish and chips!

✎ Write your answer & show your silly thinking below:

### Question 4: Midnight Freeze vs. Noon Sunshine

At midnight in Frosty Town, the thermometer read  $-7^{\circ}\text{C}$ . By noon the next day, the sun came out and the temperature jumped up to  $8^{\circ}\text{C}$ .

What is the total difference in degrees between midnight and noon? (Hint: Count how far it is from  $-7$  to  $0$ , then  $0$  to  $8$ !)

✎ Write your answer & show your silly thinking below:

### Question 5: Captain Freeze's Big Argument

Captain Freeze claims that  $-10^{\circ}\text{C}$  is **WARMER** than  $-3^{\circ}\text{C}$  because  $10$  is bigger than  $3$ !

Is Captain Freeze correct, or is his brain totally frozen? Explain who is right and why!

■ **Silly Math Joke:** Why was the negative number so sad? Because it was below zero!

✎ Write your answer & show your silly thinking below:

**SECTION 3: DEEP SEA DIVING & MOUNTAIN CLIMBING ■■■****Question 6: The Rubber Duck Submarine**

A submarine carrying 100 yellow rubber ducks started at sea level (0 meters). It dived down to **-45 meters** to look at a sleeping octopus. Then it floated back UP by **20 meters**.

At what depth is the rubber duck submarine floating now?

✎ Write your answer & show your silly thinking below:

**Question 7: Fix Sir Freeze-a-Lot's Signs!**

Sir Freeze-a-Lot got confused while putting signs between these freezing numbers! Put > (greater than) or < (less than) in the boxes to fix his homework:

a)  $-9$  [   ]  $-2$                       b)  $-15$  [   ]  $0$

c)  $4$  [   ]  $-10$                       d)  $-3$  [   ]  $-7$

■ Silly Math Joke: What do you call a snowman in July? A puddle!

✎ Write your answer & show your silly thinking below:

**Question 8: The Yeti's Wardrobe Sorting**

Help the Yeti pack his suitcase! Order these temperatures from **COLDEST (smallest) to WARMEST (largest)**:

Values:  $5^{\circ}\text{C}$ ,  $-14^{\circ}\text{C}$ ,  $-2^{\circ}\text{C}$ ,  $12^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$ ,  $-20^{\circ}\text{C}$

✎ Write your answer & show your silly thinking below:

**SECTION 4: THE WEEKLY IGLOO WEATHER PUZZLE** ■■■❄■■■**Question 9: Igloo Village Weather Report**

Here is the weekly temperature forecast for the Mathlete Igloo Village:

• Monday:  $-5^{\circ}\text{C}$  • Tuesday:  $-1^{\circ}\text{C}$  • Wednesday:  $-9^{\circ}\text{C}$  • Thursday:  $3^{\circ}\text{C}$  • Friday:  $-12^{\circ}\text{C}$

- 1) Which day was the absolute coldest? \_\_\_\_\_
- 2) Which day was the warmest? \_\_\_\_\_
- 3) What is the difference in temperature between Friday and Thursday?

☞ ■ Write your answer & show your silly thinking below:

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**■ TEACHER EVALUATION & DINA'S OFFICIAL SIGNATURE BLOCK**

Student Name: \_\_\_\_\_

Completion Date: \_\_\_\_\_

Final Score: \_\_\_\_\_ / 30 Points

Mastery Level: [ ] Super Star [ ]  
Good [ ] Practice Needed

Teacher / Parent Notes: \_\_\_\_\_

Approved & Verified by Dina: \_\_\_\_\_

Signature Date: \_\_\_\_\_