

Negative Numbers, Opposites and Absolute Value

Grade 6 math · Test · Standards: 6.NS.C.5, 6.NS.C.6a, 6.NS.C.7

Name: _____ Date: _____ Class: _____

This test has 9 questions worth 20 points and should take about 45 minutes. Show the reasoning for each answer, and sketch a number line whenever it helps. Calculators are not allowed.

Standards: 6.NS.C.5, 6.NS.C.6a, 6.NS.C.7 · **Level:** Grade 6

Time: 45 minutes · 9 questions · Total: 20 points · Calculator: as allowed by your teacher

Question 1 Signed numbers in context (2 points)

Write a positive or negative number for each situation.

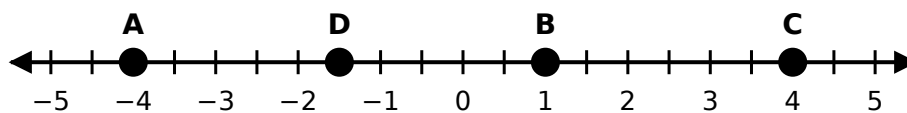
- A submarine is 85 feet below sea level. (1 point)
- A school fundraiser earns \$120. (1 point)

Question 2 Opposites and absolute value (2 points)

- Write the opposite of -17 . (1 point)
- Evaluate $|-23|$. (1 point)

Question 3 Reading points (2 points)

Use the number line.



Number line for Question 3.

- Write the numbers shown by points A and D. (1 point)
- Which two points are opposites of each other? (1 point)

Question 4 Comparing numbers (2 points)

Write $<$, $>$ or $=$ in each blank.

- -8 -3 (1 point)

b. $|-6|$ ___ -6 (1 point)

Question 5 Ordering rational numbers (2 points)

Order from least to greatest: $-\frac{3}{2}$, 0.4 , -1.2 , $\frac{1}{4}$.

Question 6 Overnight lows (3 points)

The overnight low temperatures were: Duluth -14 °F, Bozeman -9 °F, Fargo -17 °F, Denver 3 °F.

- Which city was coldest? (1 point)
- List the cities from warmest to coldest. (1 point)
- Which city's temperature has the greatest absolute value? Explain why that city is not the warmest. (1 point)

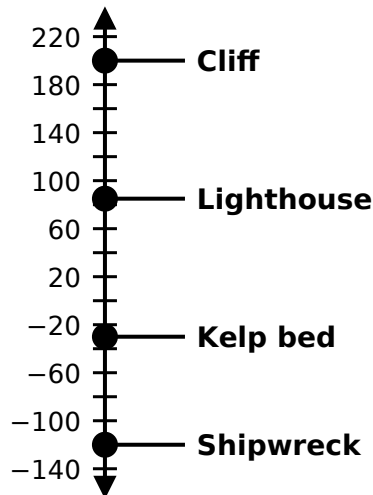
Question 7 Checking a claim (3 points)

Elena says " $-9 > -4$ because $9 > 4$."

- Is she correct? Explain using a number line. (1 point)
- Write the correct inequality. (1 point)
- Which of the two numbers has the greater absolute value? (1 point)

Question 8 Above and below sea level (3 points)

The scale shows four places relative to sea level.



Positions above and below sea level (feet).

- List the places from lowest to highest. (1 point)
- Which place is closest to sea level? (1 point)
- Which place is farthest from sea level? (1 point)

Question 9 Negative but greater (1 point)

Give a negative number that is greater than -3 .