

Grade 7 · Adding and Subtracting Integers and Rational Numbers · Quiz

Common Core 7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

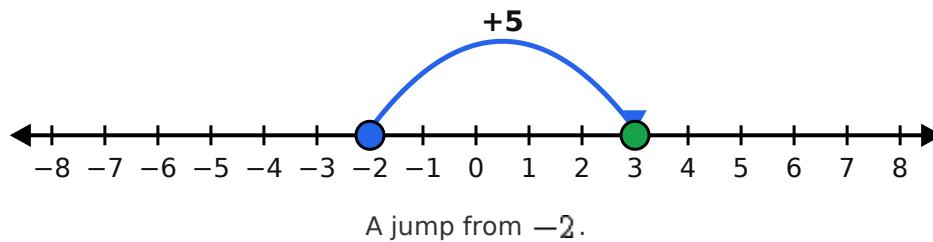
Test your skill with adding and subtracting integers, decimals, and fractions. These ten multiple-choice questions use number lines, temperatures, and distances. Choose the one correct answer for each, then read the explanation.

Grade 7 Common Core: 7.NS.A.1a · 7.NS.A.1b · 7.NS.A.1c · 7.NS.A.1d

Questions

Question 1

Which equation does the number line show?



- A. $-2+5=3$
- B. $-2+3=1$
- C. $2-5=-3$
- D. $-2-5=-7$

Question 2

What is $-9+4$?

- A. -5
- B. 5
- C. -13
- D. 13

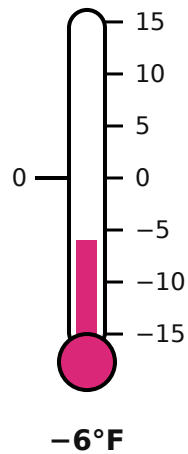
Question 3

What is $-7 - (-2)$?

- A. -9
- B. -5
- C. 5
- D. 9

Question 4

The thermometer shows the morning temperature. It then rises 10°F . What is the new temperature?



Morning temperature.

- A. -16°F
- B. 16°F
- C. -4°F
- D. 4°F

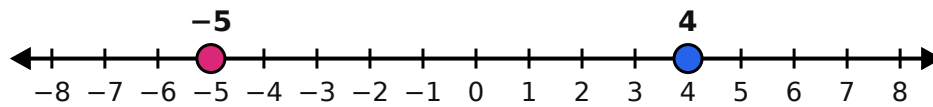
Question 5

Which expression equals 0?

- A. $-12 - 12$
- B. $12 - (-12)$
- C. $-12 + 12$
- D. $12 + 12$

Question 6

What is the distance between the two points on the number line?



Two plotted points.

- A. 1 unit
- B. 8 units
- C. -9 units
- D. 9 units

Question 7

What is $6-11$?

- A. 5
- B. -5
- C. 17
- D. -17

Question 8

A submarine is at -85 ft. It rises 40 ft. What is its new elevation?

- A. -125 ft
- B. 45 ft
- C. -45 ft
- D. -40 ft

Question 9

What is $-1.5-2.25$?

- A. -3.75
- B. 0.75
- C. -0.75
- D. 3.75

Question 10

What is the distance between $-\frac{3}{4}$ and $\frac{1}{2}$?

- A. $\frac{1}{4}$
- B. $\frac{1}{2}$
- C. $\frac{3}{4}$
- D. $\frac{5}{4}$

Answer key

1. **A** - The arc starts at -2 and moves 5 units right, so $-2+5=3$. Moving left would show subtraction of 5.
2. **A** - The signs differ, so subtract $9-4=5$ and keep the sign of -9 . Adding the absolute values is a common mistake.
3. **B** - Subtracting -2 means adding 2: $-7+2=-5$. The answer -9 comes from ignoring the negative sign on 2.
4. **D** - $-6+10=4$. A rise moves the temperature up, so it passes through 0 and becomes positive.
5. **C** - Opposites add to zero, so $-12+12=0$. The other three expressions equal -24 , 24 , and 24 .
6. **D** - Distance is $|-5-4|=9$. Subtracting the absolute values gives 1, and a distance is never negative.
7. **B** - $6-11=6+(-11)=-5$. Since 11 is larger than 6, the result is below zero.
8. **C** - $-85+40=-45$. The submarine is still below sea level because 40 is less than 85.
9. **A** - $-1.5-2.25=-1.5+(-2.25)=-3.75$. Both numbers push the result further below zero.
10. **D** - $|\frac{3}{4}-\frac{1}{2}|=|\frac{5}{4}|=\frac{5}{4}$. Subtracting the absolute values gives $\frac{1}{4}$, which is wrong.

Remember:

- Opposites add to zero: $p+(-p)=0$.
- Subtraction is adding the opposite: $p-q=p+(-q)$.
- Subtracting a negative number gives a sum: $5-(-7)=12$.
- The distance between p and q on a number line is $|p-q|$.