

Grade 7 · Adding and Subtracting Integers and Rational Numbers · Test Answer Key

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

This answer key gives complete solutions and a scoring guide for each question of the adding and subtracting integers test. The total is 20 points. Award partial credit as described, and accept equivalent forms of correct answers.

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

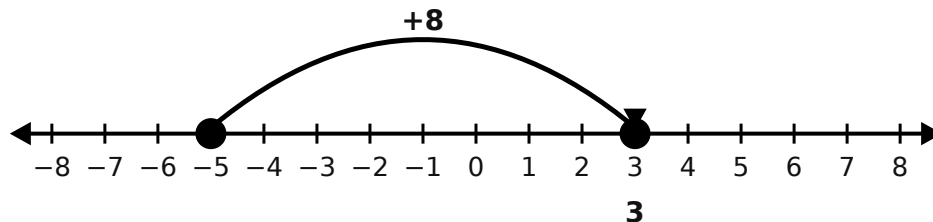
Question 1: Opposites (2 points)

- a. The opposite of -13 is 13 .
- b. Opposites add to zero, so $-18.5 + 18.5 = 0$.

Scoring: 1 point for each correct answer.

Question 2: Equation from a Number Line (2 points)

The jump is 8 units right from -5 and ends at 3.



Landing point 3.

$$-5 + 8 = 3$$

Scoring: 1 point for the correct addends -5 and 8 , 1 point for the sum 3 .

Question 3: Adding Integers (2 points)

- a. $14 - 9 = 5$, and -14 has the larger absolute value, so -5 .
- b. Same signs: $8 + 6 = 14$, so -14 .

Scoring: 1 point for each correct sum.

Question 4: Subtracting Integers (2 points)

- a. $7 + (-15) = -8$.

b. $-3+9=6$.

Scoring: 1 point for each correct difference.

Question 5: Decimals and Fractions (2 points)

a. $2.75-1.5=1.25$, with the sign of -2.75 : -1.25 .

b. $-\frac{2}{4}+\left(-\frac{3}{4}\right)=-\frac{5}{4}$, or $-1\frac{1}{4}$.

Scoring: 1 point for each correct value. Accept equivalent forms such as $-1\frac{1}{4}$.

Question 6: Overnight Temperatures (2 points)

a. $-8+15=7$, so 7°F .

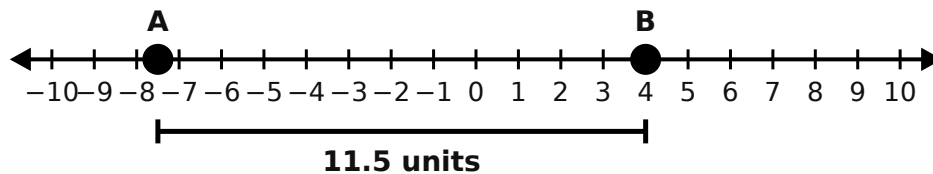
b. $7-11=-4$, so -4°F .

Scoring: 1 point for each correct temperature with the correct sign.

Question 7: Distance Between Points (3 points)

a. $|-7.5-4|=-11.5|=11.5$. The distance is **11.5 units**.

b. $4+5.5=9.5$.



Distance $AB=11.5$.

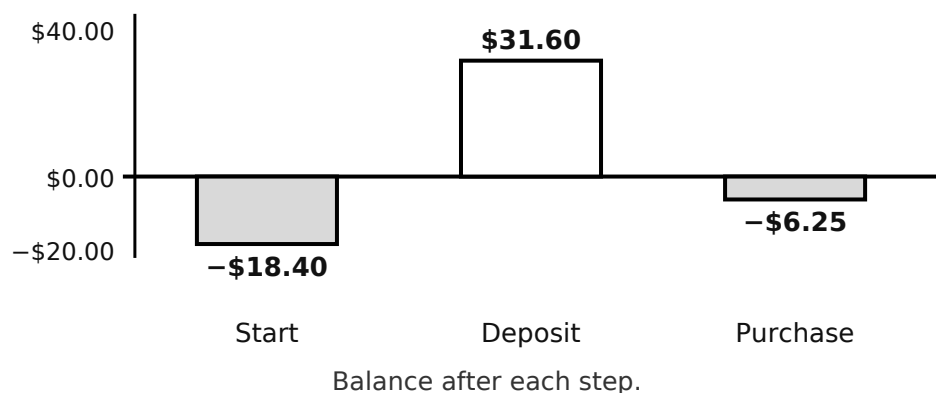
Scoring: 2 points for part (a): 1 for a correct absolute value expression such as $|-7.5-4|$, 1 for 11.5. 1 point for part (b).

Question 8: Account Balance (3 points)

a. $-18.40+50=31.60$, so \$31.60.

b. $31.60-37.85=-6.25$, so $-\$6.25$.

c. The opposite of -6.25 is 6.25, so he must deposit \$6.25.



Scoring: 1 point for each part.

Question 9: Find the Error (2 points)

- Liam subtracted 2 instead of subtracting -2 . Subtracting a negative number means adding its opposite, so the expression is $-6+2$.
- $-6+2=-4$.

Scoring: 1 point for a correct explanation (adding the opposite), 1 point for -4 .

Total
20 points