

Adding and Subtracting Positive and Negative Numbers

Grade 7 math · Test · Standards: 7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d

Name: _____ Date: _____ Class: _____

This test has 8 questions worth 20 points and fits 45 minutes. Show how you rewrite subtraction and which sign rule you apply. Label temperatures, dollars and distances with their units.

Standards: 7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d · **Level:** Grade 7

Time: 45 minutes · 8 questions · Total: 20 points · Calculator: as allowed by your teacher

Question 1 Adding Integers (2 points)

Find each sum.

- a. $-17 + 8$ (1 point)
- b. $-5 + (-11)$ (1 point)

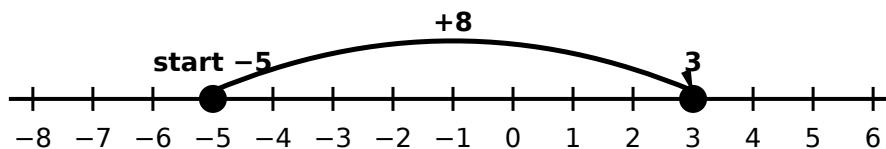
Question 2 Subtracting Integers (2 points)

Find each difference.

- a. $6 - 15$ (1 point)
- b. $-8 - (-13)$ (1 point)

Question 3 Number Line Model (3 points)

The number line models an addition problem.



Number line for Question 3.

- a. Write the addition equation shown. (1 point)
- b. Rewrite $3 - 8$ as an addition and evaluate it. (1 point)

c. What is the distance between -5 and 3 ? (1 point)

Question 4 Night and Day Temperatures (3 points)

The temperature is -12°F at night and rises to 9°F at midday.

- By how many degrees did it rise? (1 point)
- It then falls 15°F by evening. What is the evening temperature? (1 point)
- What is the distance between the night temperature and the evening temperature? (1 point)

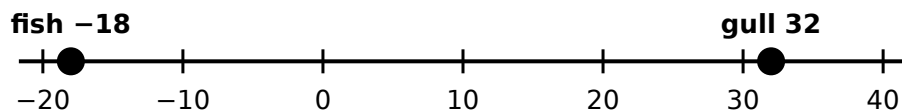
Question 5 Decimals and Fractions (3 points)

Find each value.

- $-2.8 + 6.5$ (1 point)
- $-1.4 - 3.9$ (1 point)
- $-\frac{2}{3} + \frac{1}{4}$ (1 point)

Question 6 Gull and Fish (3 points)

A gull flies 32 meters above sea level. A fish swims 18 meters below sea level.



Positions in meters relative to sea level.

- Write the gull's and fish's positions as integers and the distance between them. (1 point)
- The fish rises 27 meters. What is its new position? (1 point)
- How far is the fish now from the gull? (1 point)

Question 7 Debt and Deposit (2 points)

- An account balance is $-\$62.50$. What deposit brings the balance to exactly $\$0$? (1 point)
- Evaluate $-31 + 31 + (-4)$. (1 point)

Question 8 Find the Unknown (2 points)

Find the missing number.

a. $-9 + ? = 4$ (1 point)

b. $5 - ? = 12$ (1 point)