

Grade 7 · Rational Numbers: Decimals, Fractions and Word Problems · Test

Common Core 7.NS.A.2d, 7.NS.A.3 · mathovore.fr

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

This test has 8 questions worth 20 points in total and should take about 45 minutes. Write decimals from long division, evaluate expressions with positive and negative rational numbers, and solve word problems. Show every step; partial credit is given.

Test information

- **Grade:** Grade 7
- **Chapter:** Rational Numbers: Decimals, Fractions and Word Problems
- **Common Core:** 7.NS.A.2d, 7.NS.A.3
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 3 pts; Question 5: 3 pts; Question 6: 3 pts; Question 7: 3 pts; Question 8: 2 pts)

Question 1: Convert to decimals (2 points)

Use long division to write each fraction as a decimal.

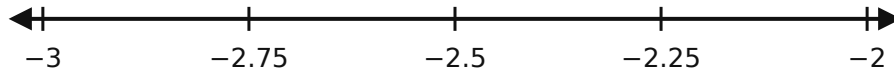
- $\frac{7}{16}$ (1 point)
- $\frac{5}{12}$ (1 point)

Question 2: Is it exact? (2 points)

Ethan says that $\frac{1}{6} = 0.16$ exactly. Use long division to decide whether he is correct, and write the decimal form of $\frac{1}{6}$ correctly.

Question 3: Order temperatures (2 points)

Four overnight temperatures in degrees F are -2.25 , -2.6 , -2.2 , $-2\frac{3}{4}$. Write them in order from least to greatest.



A number line to use.

Question 4: Add and subtract (3 points)

Evaluate.

- a. $-4.8 + 7.35$ (1 point)
- b. $-\frac{5}{6} - \frac{1}{4}$ (1 point)
- c. $(-\frac{3}{8})(-\frac{4}{9})$ (1 point)

Question 5: Multiply and divide (3 points)

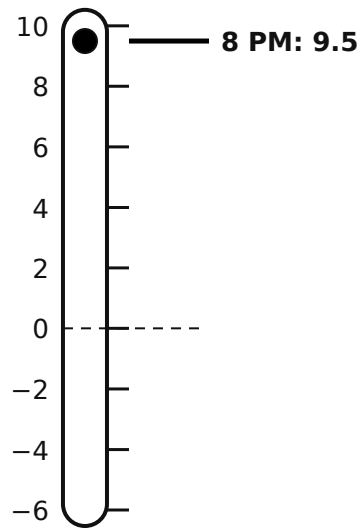
Evaluate.

- a. $(-2.4) \div 0.8$ (1 point)
- b. $(-\frac{3}{4}) \div \frac{9}{10}$ (1 point)
- c. $(-1.5) \times 2\frac{2}{3}$ (1 point)

Question 6: Overnight cold (3 points)

At 8 PM the temperature at Camp Pine was 9.5°F . It changed by -2.75°F each hour for 5 hours.

- a. Find the total change in temperature. (1 point)
- b. Find the temperature after 5 hours. (1 point)
- c. The temperature then rises 6.5°F . Find the new temperature. (1 point)



Temperature in degrees F.

Question 7: Bank account (3 points)

Aisha's account balance is $-\$12.40$ because it is overdrawn. She deposits $\$50.00$ and then buys 3 items that cost $\$8.25$ each.

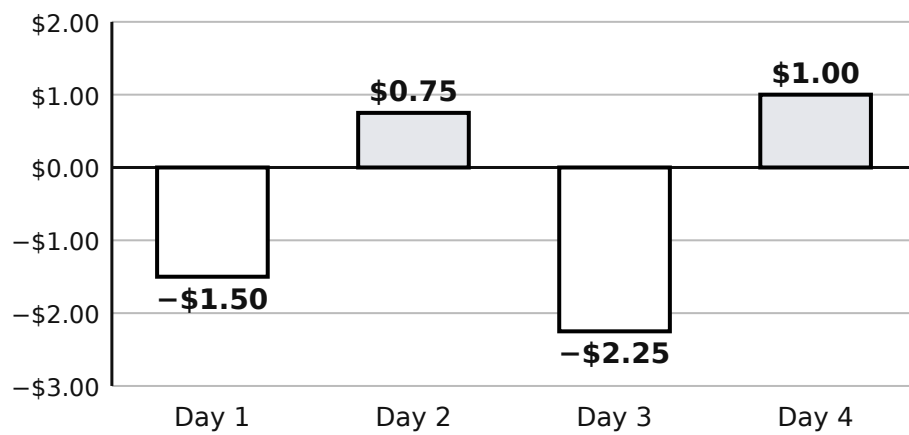
- Find the balance after the deposit. (1 point)
- Find the total cost of the 3 items. (1 point)
- Find the final balance. (1 point)

Event	Amount
Starting balance	$-\$12.40$
Deposit	$+\$50.00$
3 items at $\$8.25$	?

Aisha's account.

Question 8: Mean change (2 points)

A stock changed in price by $-\$1.50$, $+\$0.75$, $-\$2.25$ and $+\$1.00$ over four days. Find the mean daily change.



Daily changes in dollars.