

Grade 7 - Multistep Problems with Rational Numbers - Quiz

Common Core 7.EE.B.3 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

Answer all 10 multiple-choice questions on multistep real-life problems with positive and negative rational numbers in any form, converting between fractions, decimals, and percents, and checking with estimation. Pick the single best answer, then read the explanation to see why it is right and which common mistake each wrong choice shows. A score of 8 or more means you are ready for the test.

Grade 7 · Common Core State Standards: **7.EE.B.3**

Questions

Question 1

Fraction	Decimal	Percent
$\frac{3}{5}$	?	?

What is $\frac{3}{5}$ as a percent?

- A. 60%
- B. 35%
- C. 0.6%
- D. 6%

Question 2

Which is the best estimate of 49.8×3.1 ?

- A. 150
- B. 50
- C. 200
- D. 15

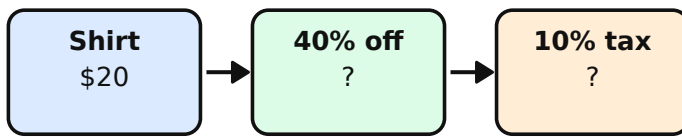
Question 3

What is $\frac{1}{4} + 0.5 + 25\%$?

- A. 0.8
- B. 1
- C. 1.25

D. 0.75

Question 4



A shirt costs \$20. It is 40% off, and then 10% tax is added to the sale price. What is the final cost?

- A. \$14.00
- B. \$12.00
- C. \$18.00
- D. \$13.20

Question 5

Jamal earns \$10 per hour and time-and-a-half for overtime. How much does he earn for 5 overtime hours?

- A. \$50
- B. \$15
- C. \$125
- D. \$75

Question 6

Which number is the greatest?

- A. 0.85
- B. 80%
- C. $\frac{7}{8}$
- D. $\frac{3}{4}$

Question 7

A balance of $-\$40$ gets a \$75 deposit. Then $\frac{1}{5}$ of the new balance is spent. How much is spent?

- A. \$7
- B. \$15
- C. \$8
- D. \$35

Question 8

Bag 20 lb

Used 3/4 left

A 20-pound bag has $\frac{3}{4}$ used. Which expression

gives pounds left?

- A. $20 - \frac{3}{4}$
- B. $20 - \frac{3}{4} \times 20$
- C. $\frac{3}{4} \times 20$
- D. $20 \div \frac{3}{4}$

Question 9

Priya says $52.3 \div 4.9$ is about 10. Is this reasonable?

- A. No, because it should be about 100
- B. Yes, because $50 \div 5 = 10$
- C. No, because it should be about 1
- D. Yes, because $50 \times 5 = 250$

Question 10

Factor	Value
First	-3.2
Second	5/8

What is $-3.2 \times \frac{5}{8}$?

- A. 2
- B. -0.5
- C. -2
- D. -5.12

Answers

1. **A** - $3 \div 5 = 0.6$, and $0.6 \times 100 = 60\%$.
2. **A** - Round to $50 \times 3 = 150$. The others are off by a factor of 3 or 10.
3. **B** - All three are in different forms: $0.25 + 0.5 + 0.25 = 1$.
4. **D** - Sale price is $0.60 \times 20 = 12$; tax makes it $1.10 \times 12 = 13.20$.
5. **D** - The overtime rate is $10 \times 1.5 = 15$, and $15 \times 5 = 75$.
6. **C** - $\frac{7}{8} = 0.875$, greater than 0.85, 0.80, and 0.75.
7. **A** - The new balance is 35 and $\frac{1}{5} \times 35 = 7$.
8. **B** - Used is $\frac{3}{4} \times 20 = 15$, so left is $20 - 15 = 5$.
9. **B** - Rounding to compatible numbers gives $50 \div 5 = 10$, and the exact value is about 10.7.
10. **C** - $3.2 \times \frac{5}{8} = 2$ and the signs differ, so the answer is negative.

Remember

- Fractions, decimals, and percents are different names for the same numbers.
- Convert to one form before you combine numbers.
- Break the problem into steps and write the expression for each step.
- Round only at the end; round money to the nearest cent.
- Estimate with friendly numbers to check reasonableness.