

Grade 7 - Multistep Problems with Rational Numbers - Worksheet

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

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

These 20 problems practice multistep real-life problems with positive and negative rational numbers in any form, converting between fractions, decimals, and percents, and checking with estimation (Common Core 7.EE.B.3). They start with the basic skill, move to different kinds of numbers and multistep work, and end with six word problems set in everyday situations such as shopping, sports, and travel.

Show every step of your work, and use the answer key only after you have tried each problem.

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

Exercise 1 - Fraction to percent

Fraction	Decimal	Percent
$\frac{3}{8}$	?	?

Fill in the row.

Write $\frac{3}{8}$ as a decimal and as a percent.

Exercise 2 - Decimal to fraction

Write 0.35 as a fraction in simplest form.

Exercise 3 - Estimate first

Estimate 19.8×4.1 by rounding. Then find the exact product.

Exercise 4 - Mixed forms

Find $\frac{3}{4} + 0.5$ as a decimal.

Exercise 5 - Negative decimal and fraction

Find $-2.5 + \frac{3}{4}$.

Exercise 6 - Part of a part

Find 20% of $\frac{3}{4}$ of 150.

Exercise 7 - Overtime pay

Jamal earns \$12.50 per hour for the first 40 hours and 1.5 times that rate for overtime. Find his pay for a 46-hour week.

Exercise 8 - Gift card

Item	Price
Shirt	\$11.95
Shirt	\$11.95
Shirt	\$11.95
Tax rate	8%

The receipt.

Sofia has a \$50 gift card. She buys 3 shirts at \$11.95 each and pays 8% sales tax. Find the total cost and the balance left on the card.

Exercise 9 - Cutting lumber

ft board	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	1 $\frac{1}{2}$	?
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Cuts from a 12-foot board.

Mei cuts three pieces of $2\frac{3}{4}$ feet and one piece of $1\frac{1}{2}$ feet from a 12-foot board. Find the length of the leftover piece.

Exercise 10 - Split the bill

Four friends split a \$64.80 dinner bill plus an 18% tip equally. Find each share to the nearest cent.

Exercise 11 - Smaller recipe

A recipe needs $2\frac{1}{2}$ cups of flour. Liam reduces it by 30%. Find the new amount.

Exercise 12 - Is it reasonable?

Priya says 18.7% of 392 is about 73. Check by estimating with 20% of 400, then compute the exact value.

Exercise 13 - Distance after rests

A trail is 7.5 miles long. Aisha hikes $\frac{3}{5}$ of it, rests, and then hikes $\frac{2}{3}$ of the remaining distance. Find how many miles are still left.

Exercise 14 - Fundraiser

The Maple Street bake sale goal is \$1,200. By Monday the class has reached 35% of the goal. On Tuesday it raises $\frac{2}{5}$ of the goal. Find the amount still needed.

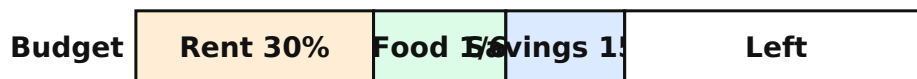
Exercise 15 - Phone plans

Plan A costs \$25 a month plus \$0.10 per text. Plan B costs \$40 a month with unlimited texts. Find each plan's cost for 100 texts and for 200 texts. Tell which plan is cheaper each time.

Exercise 16 - Scaling a recipe

Mei makes 1.5 times a recipe that uses $2\frac{1}{4}$ cups of flour and $\frac{3}{4}$ cup of sugar. She cuts the sugar by 20%. Find the cups of flour and the cups of sugar she uses.

Exercise 17 - Monthly budget



A \$2,400 budget.

The Garcia family has a monthly budget of \$2,400. Rent is 30%, food is $\frac{1}{6}$, and savings are 15%. Find the dollar amount of each and the amount left over.

Exercise 18 - Concert tickets



Price steps.

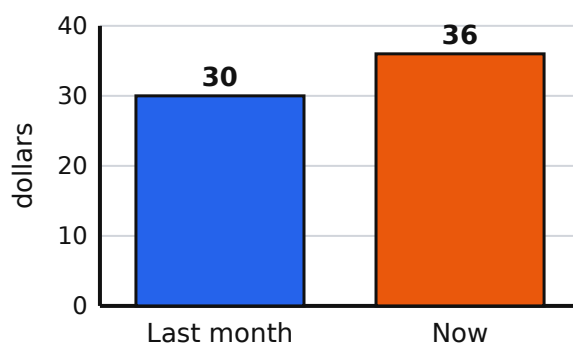
Four concert tickets cost \$45 each. A student coupon takes \$10 off the ticket total. Then a

12% service fee is added. Find the final cost.

Exercise 19 - Savings with debts

Diego owes \$12.50 to each of 4 friends (a total of -12.50×4). He earns \$30 mowing lawns and then pays back half of \$20 more that he owes someone else. Find his final balance.

Exercise 20 - Price change



The price rises.

A game cost \$30 last month and costs \$36 now. Find the percent increase. If the price then falls by $\frac{1}{6}$ of the new price, find the final price.