

Grade 6 · Adding, Subtracting, Multiplying and Dividing Decimals · Worksheet

Common Core 6.NS.B.3 · mathovore.fr

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

These 20 problems practice the four operations with multi-digit decimals from Common Core 6.NS.B.3. Early problems add and subtract; middle problems multiply and divide, using place value, area models, and the standard algorithms.

Problems 15 through 20 are word problems about shopping, gas, ribbon, trail mix, training miles, and a relay race. Line up decimal points, show each step, and check that your answer is reasonable.

Grade 6 Common Core: 6.NS.B.3

Problem 1: Add decimals

Find $4.75 + 12.6$.

$$\begin{array}{r} 4.75 \\ + 12.60 \\ \hline \end{array}$$

Decimal points are lined up.

Problem 2: Line Up and Add

Find each sum. Line up the decimal points.

- a. $6.4 + 13.78$
- b. $0.095 + 2.5$
- c. $15 + 0.07$

Problem 3: Subtract decimals

Find $20.3 - 7.84$.

$$\begin{array}{r} 20.30 \\ - 7.84 \\ \hline \end{array}$$

Decimal points are lined up.

Problem 4: Subtract with Zeros

Find each difference. Write zeros as placeholders when needed.

- a. $9 - 3.46$
- b. $12.05 - 8.7$
- c. $0.5 - 0.037$
- d. $100 - 64.29$

Problem 5: Add three numbers

Find $3.5 + 0.275 + 12$.

Problem 6: Powers of 10

The chart shows the number 3.482. Use place value to find each product or quotient without a calculator.

- a. 3.482×100
- b. 0.067×1000
- c. $52.9 \div 10$
- d. $7.5 \div 1000$

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
		3	4	8	2

3.482

The number 3.482 in a place value chart.

Problem 7: Multiply by a whole number

Find 8.3×4 .

Problem 8: Multiply two decimals

Find 4.8×3.25 .

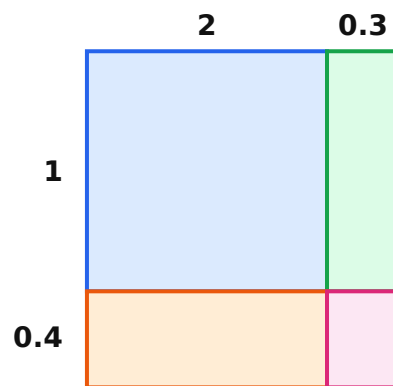
Problem 9: Decimal Products

Find each product.

- a. 0.7×0.8
- b. 3.6×0.25
- c. 12.4×5.3
- d. 0.045×6.2

Problem 10: Area Model Product

The rectangle represents 2.3×1.4 , with $2.3 = 2 + 0.3$ and $1.4 = 1 + 0.4$. Find the area of each of the four parts, then add them to find the product.



Four parts of the product 2.3×1.4 .

Problem 11: Divide by a whole number

Find $46.8 \div 12$.

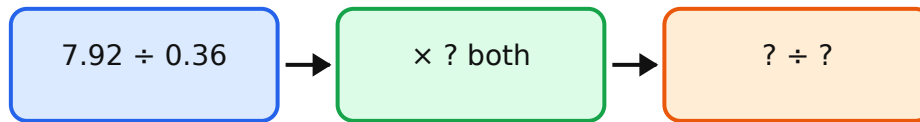
Problem 12: Long Division Quotients

Find each quotient. Use long division and place the decimal point in the quotient first.

- a. $58.5 \div 9$
- b. $9.12 \div 24$
- c. $0.675 \div 15$
- d. $74 \div 8$

Problem 13: Divide by a decimal

Find $7.92 \div 0.36$.

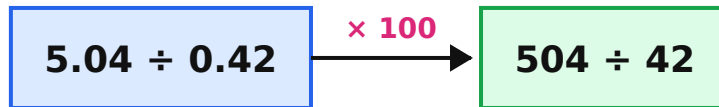


Fill in the power of 10 and the new division.

Problem 14: Dividing by Decimals

Find each quotient. For part a, the diagram shows how to rewrite the problem with a whole-number divisor.

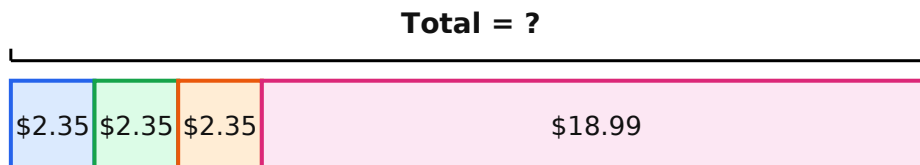
- a. $5.04 \div 0.42$
- b. $18.9 \div 0.7$
- c. $0.378 \div 0.09$
- d. $12 \div 0.015$



Multiply both numbers by the same power of 10.

Problem 15: School store purchase

Maya buys 3 notebooks at \\$2.35 each and one backpack for \\$18.99. She pays with a \\$30 bill. Calculate the total cost and the change she receives.



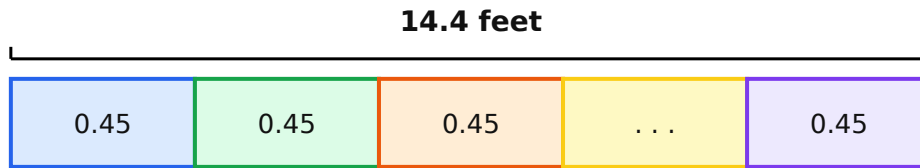
Total cost: add the four parts.

Problem 16: Filling the Tank

Ethan puts 11.6 gallons of gas in the car at \$3.45 per gallon and pays with a \$50 bill. Find the cost of the gas and the change he receives.

Problem 17: Ribbon pieces

A craft store has a ribbon that is 14.4 feet long. Calculate how many pieces, each 0.45 foot long, can be cut from it.



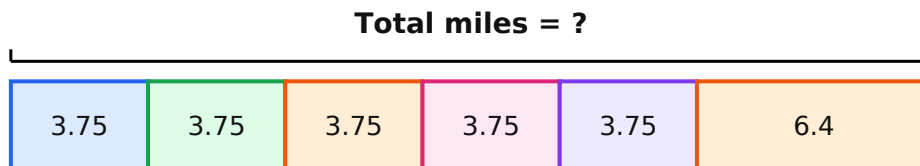
Pieces of 0.45 foot.

Problem 18: Trail Mix Bags

Aisha has 7.5 pounds of trail mix. She packs it into bags that each hold 0.25 pound and sells each bag for \$2.75. The ingredients cost her \$41.80. Find the number of bags, the money she collects, and her profit.

Problem 19: Weekly training miles

Diego runs 3.75 miles each weekday (5 days) and 6.4 miles on Saturday. He does not run on Sunday. Find his total distance for one week. Then determine whether he runs at least 100 miles in 4 weeks at that pace.



Miles run in one week.

Problem 20: Relay Race Times

Four runners on a relay team ran their legs in 12.84, 13.07, 12.95, and 13.2 seconds. Find the team's total time, tell how far over or under the goal of 52 seconds the team finished, and find the mean time per leg.