

Decimal Operations: Add, Subtract, Multiply, Divide

Grade 6 math · Worksheet · Standards: 6.NS.B.3

Name: _____ Date: _____ Class: _____

These 20 problems cover the standard algorithms for adding, subtracting, multiplying and dividing multi-digit decimals, including placing the decimal point and dividing by a decimal.

The last six problems are money and measurement word problems. They train standard 6.NS.B.3.

Standards: 6.NS.B.3 · **Level:** Grade 6

Problem 1 Adding Decimals (easy)

Add: $3.46 + 12.9$.

Problem 2 Subtracting from a Whole Number (easy)

Subtract: $20 - 7.35$.

Problem 3 Adding Money (easy)

A shopper buys a notebook for \$4.75, a backpack tag for \$12.40 and a sticker for \$0.99. What is the total?

Problem 4 Subtracting with Zeros (easy)

Subtract: $8.004 - 2.76$.

Problem 5 Aligning Decimals (easy)

The numbers 5.6, 0.78 and 14 are lined up by their decimal points. Find the sum.

$$\begin{array}{r}
 5.60 \\
 0.78 \\
 + 14.00 \\
 \hline
 ?
 \end{array}$$

Zeros fill the empty places.

Problem 6 Decimal Times Whole Number (easy)

Multiply. (a) 6.4×7 (b) 0.35×12

Problem 7 Decimal Times Decimal (medium)

Multiply. (a) 3.6×0.7 (b) 0.08×0.9 (c) 12.5×0.04

Problem 8 Placing the Point (medium)

The picture shows $47 \times 23 = 1,081$. Use it to place the decimal point in (a) 4.7×2.3 (b) 0.47×0.23 (c) 47×0.023 .

$$47 \times 23 = 1,081$$

Use the whole-number product.

Problem 9 Dividing by a Whole Number (medium)

Divide. (a) $17.5 \div 5$ (b) $9.36 \div 12$

Problem 10 Quotients That Keep Going (medium)

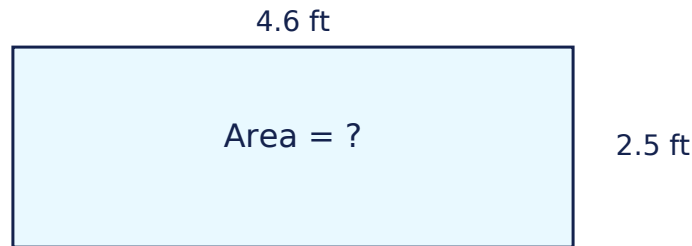
Divide, adding zeros after the decimal point as needed. (a) $7 \div 8$ (b) $9 \div 16$

Problem 11 Dividing by a Decimal (medium)

Divide. (a) $8.4 \div 0.07$ (b) $4.55 \div 1.3$ (c) $0.96 \div 0.08$

Problem 12 Garden Bed Area (medium)

A rectangular garden bed is 4.6 feet long and 2.5 feet wide. Find its area.



$$\text{Area} = \text{length} \times \text{width}.$$

Problem 13 Estimate, Then Multiply (medium)

(a) Estimate 18.7×4.9 by rounding. (b) Find the exact product.

Problem 14 Order of Operations (medium)

Evaluate $12.5 - 3.2 \times 2.5$.

Problem 15 Filling the Tank (hard)

A driver buys 11.4 gallons of gas at \$3.85 per gallon and pays with a \$50 bill. How much is the gas, and how much change does the driver get?

Problem 16 Grocery Receipt (hard)

The receipt shows a grocery order. Find the total, then the change from a \$20 bill.

Milk	\$3.89
Bread	\$2.75
3 apples at \$0.65	\$1.95
Cheese	\$5.49
Total	?

Grocery receipt.

Problem 17 Jogging Speed (hard)

A runner jogs 3.6 miles in 0.75 hour. (a) Find the speed in miles per hour. (b) How far does the runner go in 1.5 hours at that speed?

Problem 18 Cutting Trim (hard)

A piece of trim is 12.6 feet long. A carpenter cuts it into pieces that are 0.45 foot long. How many pieces are there?

Problem 19 Taxi Fares (hard)

A taxi charges \$3.50 plus \$2.50 per mile. (a) What is the fare for 8.4 miles? (b) A fare was \$34.50. How many miles was the trip?

Problem 20 Relay Times (hard)

Four runners on a relay team ran 12.45, 11.9, 13.05 and 12.6 seconds. Find (a) the total time, (b) the mean time, and (c) how much longer the slowest runner took than the fastest.