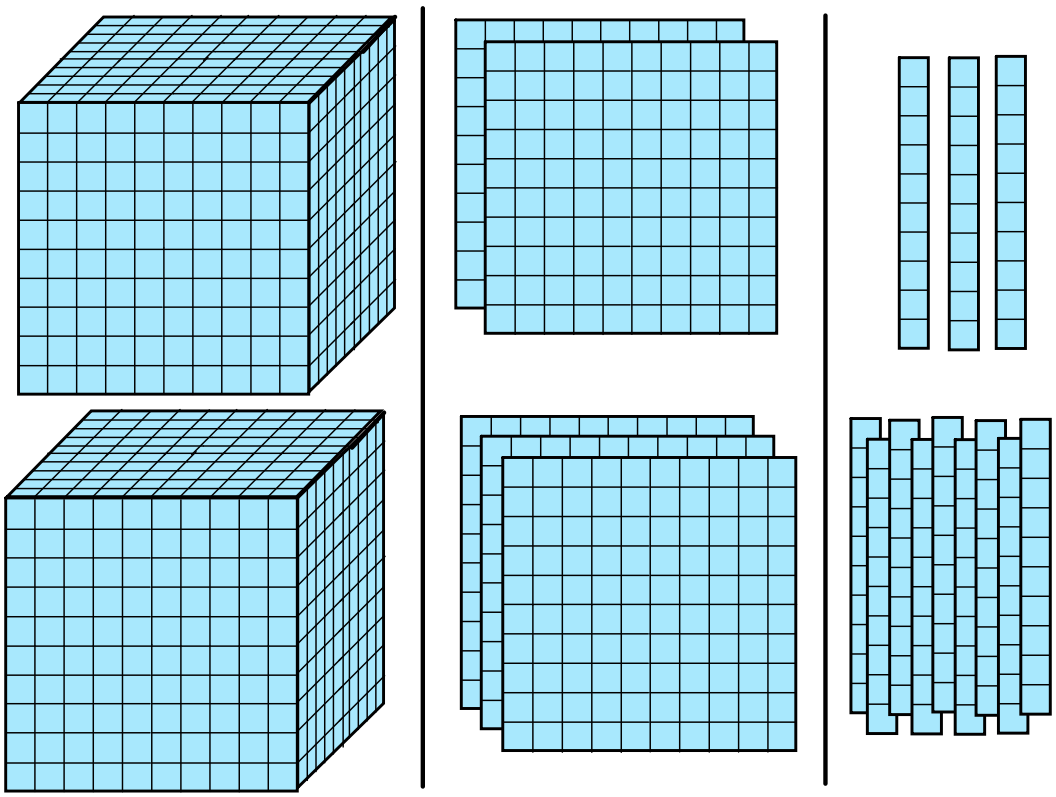
7.2: Operations on Decimals

Example: (Addition of Decimals) Compute 1.23 + 1.39.

Example: Compute 1.23 + 1.39 by using Base 10 Blocks.



Example: Compute 1.2 + 2.104.

Example: Compute 1.52 - 1.334.

7.2 Notes

Summary: To add or subtract decimals:

1. Line up at decimal point.
2. Add zeroes in blank place values.
3. Standard Algorithm.
4. Put decimal point in same place as where it was lined up.

Why does this work?

Example: Compute 1.2×1.63.

7.2 Notes

To multiply decimals:

1. Use the standard algorithm, ignoring the decimals. Note: You do not need to align at the decimal point.
2. Move the decimal place to the left the same number of decimal places as the total of the number of decimal places in the two numbers.

Why does this work?

Example: Compute 1.53×0.74.

Example: Compute 132 ÷ 8 as a decimal.

Summary: To divide to integers as a decimal, we divide as normal, but when we run out of numbers to bring down, we write a .0 (and a decimal point right above it) and bring down the 0. We then add additional zeroes as needed.

(Note: If the dividend is a decimal and the divisor is an integer, we put the decimal place above the dividend's decimal place and just add additional zeroes as needed.)

Why does this work?

7.2 Notes

Rounding Decimals: To round a decimal, we consider the number in the given place. If the digit after it is 5 or higher, we raise this number by 1 and remove the remaining digits. If the digit after it is 4 or less, we just remove the remaining digits.

Example: Round 1.3546 to the nearest thousandth.

Example: Round 1.922 to the nearest hundredth.

Example: Round 1.95 to the nearest tenth.

Example: Compute 22.57 ÷ 1.1. Round to the nearest hundredth.

7.2 Notes

Summary: To divide by a decimal, move the decimal place of the divisor to the right until it is an integer, and then move the decimal place of the dividend the same number of places. Then divide as normal.

Why does this work?

Example: Compute $9.16 \div .365$. Round to the nearest hundredth.