

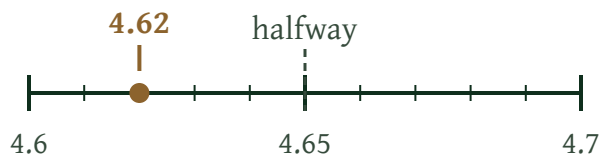


Roots of Reason

Rounding Decimals

Rounding picks the nearer of two neighbors. Find the place, then read the one digit after it.

1 Pick the Nearer Neighbor



4.62 rounds to 4.6

To the nearest tenth, 4.62 sits between 4.6 and 4.7. Halfway is 4.65. Left of it is nearer 4.6, so the rule is only a shortcut for this line.

2 One Digit Decides

	Tenths	Decides		
3 .	4	4	8	9
	round here	$4 < 5$	not used	not used

~~✗~~ 3.4489 to 3.449 to 3.45 to 3.5

✓ 3.4489 to 3.4

Rounding one place at a time, again and again, can give the wrong answer. Use only the digit **just to the right of the place you are rounding to**. Here that is 4 hundredths, and 4 is less than 5.

3 Down Means Stay

4.62 to 4.5 4.62 to 4.6

~~✗~~ the 6 dropped ✓ the 6 held

Rounding **down** keeps the digit and drops the digits after it. Rounding **up** adds 1 to the digit and drops the digits after it.

4 When 9 Rounds Up

3.4**9** | 7 to 3.50

49 hundredths and 1 more is 50 hundredths

3.410

no such digit

3.5

wrong place named

Adding 1 to the 9 makes 10 hundredths, so the tenths digit changes too: 49 hundredths becomes 50 hundredths. Keep the final zero: 3.50 says hundredths, 3.5 says tenths.