Sizing: from risk to contracts

> **POSITION SIZING**
>
> Turning a money risk into a number of contracts. Risk budget divided by what one contract loses over the stop distance gives the size, and the answer is rounded down - a fractional contract cannot be held, and rounding up would exceed the risk you just chose.

Three inputs, one division, and the most consequential number in the position comes out.

The arithmetic

Risk budget: the account balance times your risk percentage.Risk per contract: what one point is worth to you, times the stop distance in points.Contracts: the first divided by the second, rounded down.

The conversion from points to money is module 1 lesson 8, and it is the step that changes with your account currency.

Worked example - figures in USD

A 10,000 US dollar account risking 1% per trade, a 20-point stop, on a dollar-settled index at $2 a point. No conversion.

1. Risk 1% of a 10,000 account and the budget is $100. That is the decision; everything after it is arithmetic.
2. The contract is $2.00 per point, which in your account currency is $2.00 a point. Over a 20 point stop, one contract puts $40.00 at risk.
3. The budget buys 2.5000 contracts, so you trade 2 - rounded down, never up. That size actually risks $80.00, which is at or below what you chose.

Why it rounds down

You cannot hold a fraction of a contract, so the answer must be whole. Rounding up would put more at risk than the number you chose one lesson ago, which makes the whole exercise pointless.

So the position usually risks less than the budget, sometimes noticeably less. That gap is not waste - it is the cost of the instrument being lumpy, and knowing its size is the difference between sizing and guessing.

When the answer is zero

If one contract risks more than your whole budget, the honest output is zero contracts. Not one. The trade is too large for the account at that stop distance, and the choices are a tighter stop, a smaller contract, or not taking it.

Widening the risk to make the position possible is the same as not having a risk policy.

Try it yourself with the index-position-size calculator: https://ticksprout.com/tools/index-position-size

Check your understanding

1. Why is the contract count always rounded down?

a. Brokers require whole contracts
b. Rounding up would risk more than the amount chosen one step earlier
c. It makes the arithmetic simpler

Answer: b. The whole point of sizing is that the loss is capped at a number you chose. Rounding up quietly raises that number, which defeats the exercise.

2. One contract risks more than your entire budget. What is the answer?

a. One contract, since that is the minimum
b. Zero contracts - the trade is too large for the account at that stop
c. Widen the risk percentage until one contract fits

Answer: b. A tighter stop, a smaller contract, or no trade. Widening the risk to make the position possible is the same as having no risk policy.

3. Your sized position risks less than the budget. What is that gap?

a. Wasted risk capacity to be topped up
b. The cost of the instrument being lumpy, and worth knowing the size of
c. An error in the calculation

Answer: b. Contracts are whole, so the fit is rarely exact. Knowing by how much you are under is part of sizing rather than a rounding detail.