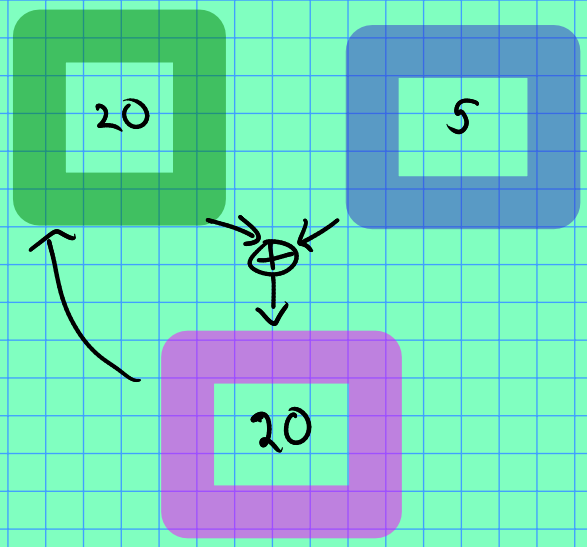
Problem: compute sum of a bunch of integers.
Rules: to remember anything, you have to write it down.

I'll give you 3 pieces of paper to work with:

13
2
5
...



Precise steps:

① write first # on green
② write next # on blue
③ pink = green + blue
④ copy pink to green
⑤ repeat from step ②
⑥ Once we're out of #s, answer is on green

≡ sum of all #s so far
≡ New number we heard
≡ temporarily holds sum

Note: the above is actually a special case of a very general pattern called "folding".

Say you want to compute

$$n_1 \star n_2 \star n_3 \star \cdots \star n_m$$

for values n_i and some operation "$\star$".
The same approach as above works. It is especially nice if $\star$ has a "neutral" element e such that

$$x \star e = x, \text{ no matter what } x \text{ is:}$$

```
t = e;
while(cin >> x) {
    t *= x;
}
```

// answer is now in t!

Note: the max program from lecture 1 was a special case! $x \star y = \max\{x, y\}$.

Neutral element? $x \star e = x$

$e = -\infty$

(INT_MIN $\approx -\infty$)

(Note: if $\star = +$, $e = 0$.)