A Scenario

To give an idea of what could go wrong, suppose that you have a Radiation Therapy Machine like the Therac-25. If the software controlling the machine used a `Time` object to specify **how long a therapy session should last**, the machine would be **intrinsically unsafe**. Think about what will happen if you write the following code using the (non-buggy) `run()` function:

```
Time treatmentTime = {0, -2};
run(treatmentTime);
. . .
void run(Time& t)
{
    auto elapsed = t.hours * 360 + t.minutes * 60;
    while (elapsed > 0)
    {
        pulseBeam();
        --elapsed;
    }
}
```

As Peg and Cat point out, you now have a fairly serious problem. Even though the `run()` function is reasonable, it relies on the `Time& t` parameter **being correctly initialized**. Because `minutes` was, (accidentally), set to a negative number, the loop will supply **not** two minutes of radiation, but **billions of pulses** instead.