1. Int B:=0;

```
While at each second {
    if baby cries, then
            B++ when B<3;
            Show red flower;
    else show blue flower,
    if earthquake then break;
}
if B==3 then
    exit nicely;
```

2. Int A:=0;

```
while at each second {
    if baby smiles then
            A++;
            Show red flower
    else
            A--;
            Show blue flower;
```

if house collapses then break;

}

if A==0 then

exit nicely.

3. Hint:
① you need understand (and explain) why you ONLY need keep track of the count of "show red flower" event up to 3 times and why in this case you consume finite amount of memory.

Hint:
② you have to keep track of the difference between the two counts which may go to unbounded (why?)

4. Wiki —— Kolmogorov Complexity.
(loose grading by how much effort you put into the solutions.)