

Part 3

Shir Matathias

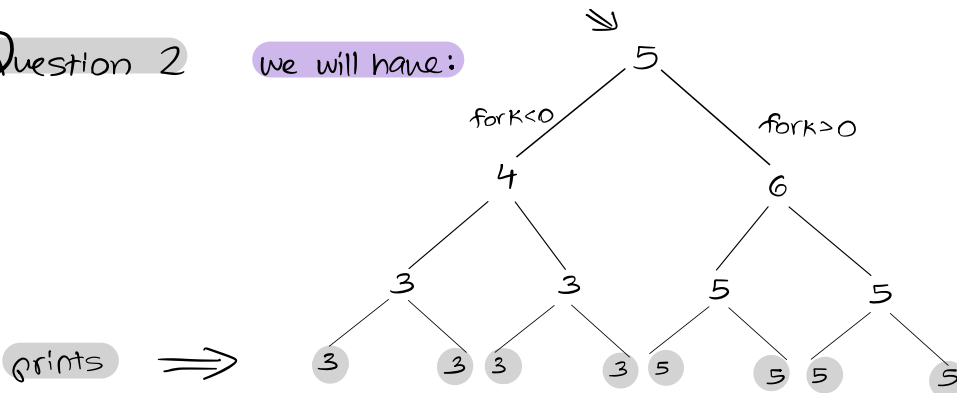
208000281

Question 1

Answer: the minimal value is 1. since we have 3 threads but if two of them are interrupted then only one of them runs and increment x ($x++$) and thus it happens only once and the minimal value for x is 1.

Question 2

we will have:



Question 3

```

int main()
{
    pid_t wpid;
    int status = 0;
    for (int i=0; i<10; i++){
        if (i % 3 == 0){
            fork();
        }
    }
    printf("forked\n");
    // wait for all processes
    while ((wpid = wait(&status)) > 0);
    return 0;
}
  
```

we will have $2^4 = 16$ times the line forked.

as we have 4 fork() commands for 0,3,6,9

