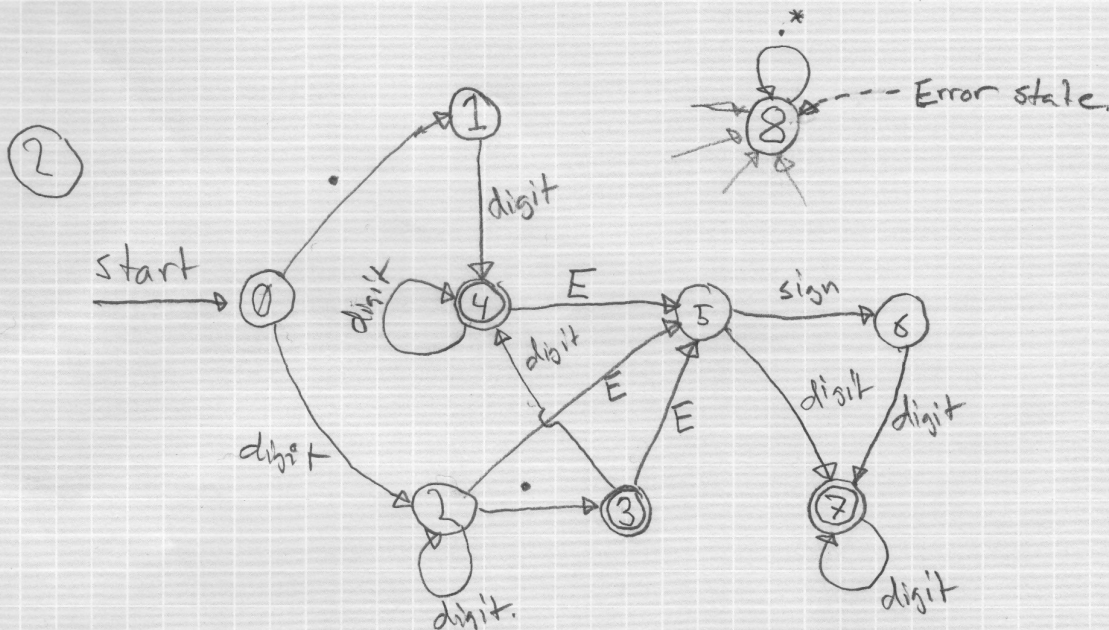


Questions lab 1

① $(digit)*(((digit)+(dot))) || ((dot)(digit)+)?((E|e)(sign)?(digit)+)?$



This could be implemented with a state machine (switch-case) inside a loop. And when the input buffer ^(or "word") is empty, check the state, and if it is 3, 4, or 7 the scanner succeeded otherwise there is an error.

Read one char per loop of course.

```

int state = 0
while (true) {
    char c = getchar(...)
    switch (state) {
        case 0:
            if (dot == c)
                state = 1
            else if (digit == c)
                state = 2
            else
                state = 8 (error)
    }
}
    
```