Problem type 1:

Draw a DFA that represents the following languages:

> *(See variants below)*

Assume $\Sigma = \{\mathtt{0}, \mathtt{1}\}$

a. **BYA**

   All strings containing the *substring* `000`

b. **BYF**

   All strings containing the *subsequence* `000`

c. **BYH**

   All strings that do not contain the *substring* `00`.

d. **BYC**

   All strings that do not contain the *subsequence* `00`

e. **BYD**

   All strings that have a even number of `0`'s.

f. **BYE**

   All strings that have a odd number of `0`'s.

g. **BYG**

   All string containing at **least** three `0`'s

h. **BYB**

   All string containing at **most** three `0`'s