Practicle 8

Representing a given circuit diagram (expressed using Gates) in the form of Boolean expression

To give Boolean expression of the given circuit diagram, we define each gate Gi separately, and finally ask for the value of the output G1

In[23]:=
```
G4 = ! a;
G5 = ! c;
G2 = a ∧ b;
G3 = G4 ∧ G5 ∧ b;
G1 = G2 ∨ G3;
G1
```

Out[28]=
```
(a && b) || (! a && ! c && b)
```

2.

In[29]:=
```
G2 = A ∧ B ∧ C;
G4 = ! C;
G3 = A ∧ B ∧ G4;
G5 = ! A;
G6 = ! C;
G7 = G5 ∧ B ∧ G6;
G1 = G2 ∨ G3 ∨ G7;
G1
```

Out[36]=
```
(A && B && C) || (A && B && ! C) || (! A && B && ! C)
```