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//Code written on December 5, 2020
//Revised  December 8, 2020
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//This program implements a boolean function in C

#include <stdio.h>

//The  main function
int main(void)
{

//2 bits = 1 baud
//4 bits = 1 nibble
//8 bits = 1 byte

//unsigned char takes input as 1 byte

unsigned char  Z=0x00,Y=0x01,X=0x01,W=0x01;//inputs in hex
unsigned char one = 0x01;//used for displaying the output in bit
unsigned char A,B,C,D;//outputs
A = ((~W)&(~X)&(~Y)&(~Z))|((~W)&(X)&(~Y)&(~Z))|((~W)&(~X)&Y&(~Z))
    |((~W)&X&Y&(~Z))|((~W)&(~X)&(~Y)&(Z));
//Boolean function for A
.
B = (W&(~X)&(~Y)&(~Z))|((~W)&X&(~Y)&(~Z))|(W&(~X)&Y&(~Z))|((~W)&X&Y
    &(~Z));//Boolean fuction

C = (W&X&(~Y)&(~Z))|((~W)&(~X)&Y&(~Z))|((W)&(~X)&Y&(~Z))|((~W)&X&Y
    &(~Z));//Boolean fuction

D = (W&X&Y&(~Z))|((~W)&(~X)&(~Y)&Z);//Boolean function for D
printf("%x\n",one&A);//Output A
printf("%x\n",one&B);//OutputB
printf("%x\n",one&C);//Output C
printf("%x\n",one&D);//Output D

return 0;
}
[style=CStyle]
output
A = 0
B = 0
C = 0
D = 0
```