

Some CP edge-case qns

~SiD

1

```
c Copy Edit

#include <stdio.h>

int main() {
    float a = 0.1;
    if (a + a + a + a + a + a + a + a + a + a == 1.0)
        printf("Equal\n");
    else
        printf("Not Equal\n");
    return 0;
}
```

Ans: Not equal (Floating point rounding error, 0.1 is truncated and hence its stored value is slightly different from 0.1)

2

```
c Copy Edit

#define x 5 + 5
int main() {
    printf("%d\n", x * x);
    return 0;
}
```

Ans: 35 (Direct substitution of x as 5+5 gives: 5 + 5 * 5 + 5)

3

```
#include <stdio.h>
#define SQUARE(x) x * x

int main() {
    printf("%d\n", SQUARE(2 + 3));
    return 0;
}
```

Ans: 11: Similar to the question above. Don't treat it as a function

4



```
main.c
1  #include <stdio.h>
2  #define b 0.1L
3  int main()
4  {
5      long double a=0.1;
6      if (b == a)
7          printf("yo");
8      else printf("no");
9
10     return 0;
11 }
12
```

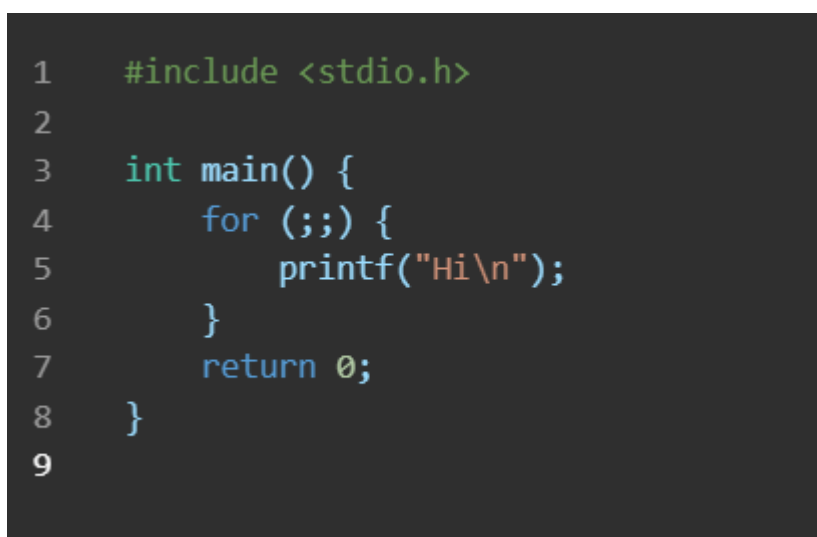
Ans: no

0.1 needs to be truncated (infinitely repeating binary representation)

a is first created as a double, truncated as a double and then its size is increased to that of a long double

b is created as a long double and then truncated
So their values won't match

5



```
1  #include <stdio.h>
2
3  int main() {
4      for (;;) {
5          printf("Hi\n");
6      }
7      return 0;
8  }
9
```

Ans: Infinite loop, when condition is not mentioned it is treated as true.