**Float Datatype**

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**1. The number of digits present after decimal in float is\_\_\_\_\_\_\_\_**

a) 1

b) 3

c) 6

d) 16

**Answer: c**

(Now, we are not talking about precision here

**Definition of precision:**

For most of our purposes when we say that a format has n-digit precision we mean that over some range, typically [10^k, 10^(k+1)), where k is an integer, all n-digit numbers can be uniquely identified.”

So d-digit precision (d a positive integer) means that if we take all d-digit decimal numbers over a specified range, convert them to b-bit floating-point, and then convert them back to decimal — rounding to nearest to d digits — we will recover all of the original d-digit decimal numbers. In other words, all d-digit numbers in the range will round-trip.

Now, generally it is 7-8

If you want to know more about floating point precision: read the following article

<https://www.exploringbinary.com/decimal-precision-of-binary-floating-point-numbers/>

)

**This is about default number of digits %f prints after decimal point**

**Which is 6**

**2. Which among the following is never possible as an output for float?**

a) 3.666666

b) 3.666

c) 3

d) None of the mentioned

View Answer

**Answer: d**

**3. In a 32-bit compiler, which 2 types have same size?**

a) char and short

b) short and int

c) int and float

d) float and double

**Answer: c**

**4. What is the size of float in a 32-bit compiler?**

a) 1

b) 2

c) 4

d) 8

**Answer: c**

**5. Loss in precision occurs for typecasting from\_\_\_\_\_\_\_\_\_\_\_\_**

a) char to short

b) float to double

c) long to float

d) float to int

**Answer)d**

**6. For union**

union temp

{

char a;

int b;

float c;

};

The size is decided by:

a) char

b) int

c) float

d) both int and float

**Answer: d**

**7. %f access specifier is used for**

a) Strings

b) Integral types

c) Floating type

d) All of the mentioned

**Answer: c**

**8. Select the odd one out with respect to type?**

a) char

b) int

c) long

d) float

**Answer: d**

**9. What is the output of this C code?**

#include <stdio.h>

printf("%.0f", 2.89);

a) 2.890000

b) 2.89

c) 2

d) 3

**Answer: d**

%.0f: 0 digits after decimal point. Hence, 2.89 is rounded off to 3

**10. What is the output of this C code?**

#include <stdio.h>

int main()

{

float a = 2.455555555555;

printf("%f", a);

}

a) 2.455555

b) 2.455556

c) 2.456

d) 2.46

**Answer: a**

**11. Which of the following % operation is invalid?**

**a) 2 % 4;**

**b) 2 % 4l**

**c) 2 % 4f;**

**d) Both 2 % 4l; and 2 % 4f;**

Answer: c

**12. Which data type is suitable for storing a number like?**

**10.0000000001**

a) int

b) float

c) double

d) both float and double

Answer: c

**13. Modulus for float could be achieved by?**

**a) a % b**

**b) modulus(a, b);**

**c) fmod(a, b);**

**d) mod(a, b);**

**Answer: c**

**14. Predict the data type of the following mathematical operation?**

**2 \* 9 + 3 / 2 . 0**

a) int

b) long

c) float

d) double

**Answer: d**

implicit typecasting order is the first thing.  
  
Next is 2.0 is a double constant. Not a float constant.

**15. %lf is used to display**

a) float

b) long float

c) double

d) all of the mentioned

**Answer) c) long float**