

Types overflow

Which primitive types can hold the following numbers:

- 127
- 128
- 16000
- 64000
- 2 000 000 000
- 4 000 000 000

Write primitive types according to their size (in bits)

- 8
- 16
- 24
- 32
- 48
- 64

Heap and Stack

Where the following objects or primitives will be allocated? (heap or stack)

- Object
- int in a function
- int as class member
- String
- int[] in a function
- int[] as class member
- static Object

Bit operations and number literals

Write the results of the following operations:

$1 \mid 3$

$1 \& 2$

$1 \ll 1$

$5 \gg 2$

$0xFF - 0b101$

Floating point

Can the following values be stored in a *float* without losing of precision?

1

2

4

0.1

0.2

1.1

1 000 100

1 000 000 001