Lab 2.3.4 Finding negative powers of 2

Objectives

Improve the student's skills in:

- using the **for** loop;
- understanding float type representation ranges.

Scenario

Okay, positive powers of two are no longer a mystery, but we mustn't forget about the negative ones. They are as important as their

$$2^{-n} = \frac{1}{2^n}$$

positive siblings. Let's remind ourselves of the basic rule:

We want you to modify your previous program to make it able to evaluate negative powers of two.

Hint 1: use division instead of multiplication.

Hint 2: use a **double** to store the result – remember, you operate in fractions!

Hint 3: don't forget to add **cout.precision(20);** before printing the final result (unless you want to lose the most interesting part of the value)

Test your code using the data we've provided.

Example input

```
0
```

Example output

```
1
```

Example input

```
1
```

Example output

```
0.5
```

Example input

```
8
```

Example output

```
0.00390625
```

Example input

```
10
```

Example output

```
0.0009765625
```