Leet Code

Day-19 Q-04 Divide Two Integers

Given two integers `dividend` and `divisor`, divide two integers without using multiplication, division and mod operator.

Return the quotient after dividing `dividend` by `divisor`.

The integer division should truncate toward zero, which means losing its fractional part. For example, `truncate(8.345) = 8` and `truncate(-2.7335) = -2`.

Example 1:

```
Input: dividend = 10, divisor = 3

Output: 3

Explanation: 10/3 = truncate(3.33333..) = 3.
```

Example 2:

```
Input: dividend = 7, divisor = -3

Output: -2

Explanation: 7/-3 = truncate(-2.33333..) = -2.
```

Note:

- Both dividend and divisor will be 32-bit signed integers.
- The divisor will never be 0.
- Assume we are dealing with an environment which could only store integers within the 32-bit signed integer range: $[-2^{31},\ 2^{31} - 1]$. For the purpose of this problem, assume that your function **returns $2^{31} - 1$ when the division result overflows**.