

1. If we list all the natural numbers below 10 that are multiples of 3 or 5, we get 3, 5, 6 and 9. The sum of these multiples is 23. Write a procedure to find the sum of all the multiples of 3 or 5 below 1000 [2].
2. Define a procedure `discount` that takes two arguments: an item's initial price and a percentage discount [1]. It should return the new price:

```
> (discount 10 5)
9.50
> (discount 29.90 50)
14.95
```

3. Each new term in the Fibonacci sequence is generated by adding the previous two terms. By starting with 1 and 2, the first 10 terms will be:

1, 2, 3, 5, 8, 13, 21, 34, 55, 89, ...

By considering the terms in the Fibonacci sequence whose values do not exceed four million, find the sum of the even-valued terms [2].

## References

- [1] Brian Harvey and Matt Wright, *Simply Scheme: Introducing Computer Science*, MIT, 1999.
- [2] Project Euler, *Project Euler*, 2016.