

## Exercises for Chapter 0

### 0.1.1

Write the numbers as the sum of two numbers.

**Example**

We can write 3 as  $1 + 2$

- a) 4      b) 5      c) 6      d) 7      e) 8      f) 9

### 0.1.2

Write the numbers as the sum of three numbers.

**Example**

We can write 4 as  $1 + 2 + 1$

- a) 5      b) 6      c) 7      d) 8      e) 9      f) 10

### 0.1.3

When the sum of two numbers equals 10, these numbers are called **friends of ten**. For example are 1 and 9 friends of ten because  $1 + 9 = 10$ .

1) Find the ten-friend of

- a) 2      b) 3      c) 4      d) 5

2) When exercise 1) is completed, why is it "unnecessary" to find the ten-friends of 6, 7 og 8?

### 0.1.4

*Note:* You can allow yourself answering the questions by simply checking a couple of examples. For proof, see [Exercise ??](#).

Choose the correct alternative of 1), 2) and 3).

- a) The sum of two even numbers is
  - 1) an even number.
  - 2) an odd number.
  - 3) sometimes an even number and sometimes an odd number.
- b) The sum of two odd numbers is
  - 1) an even number.
  - 2) an odd number.
  - 3) sometimes an even number and sometimes an odd number.
- c) The sum of an even number and an odd number is
  - 1) an even number.
  - 2) an odd number.
  - 3) sometimes an even number and sometimes an odd number.

### 0.2.1

Write the number as the difference of two numbers.

**Example**

We can write 1 as  $8 - 7$ .

- a) 2      b) 3      c) 4      d) 5      e) 6      f) 7      g) 8

### 0.2.2

*Note:* You can allow yourself answering the questions by simply checking a couple of examples. For proof, see [Exercise ??](#).

Choose the correct alternative of 1), 2) and 3).

- a) The difference of two even numbers is
- 1) an even number.
  - 2) an odd number.
  - 3) sometimes an even number and sometimes an odd number.
- b) The difference of two odd numbers is
- 1) an even number.
  - 2) an odd number.
  - 3) sometimes an even number and sometimes an odd number.
- c) The difference of an even number and an odd number is
- 1) an even number.
  - 2) an odd number.
  - 3) sometimes an even number and sometimes an odd number.

### 0.3.1

Write as a multiplication, and write the alternative sum.

**Example**

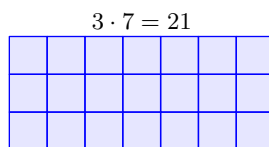
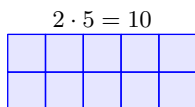
$$3 + 3 + 3 + 3 + 3 = 3 \cdot 5 = 5 + 5 + 5$$

- a)  $2 + 2 + 2$
- b)  $3 + 3 + 3 + 3 + 3 + 3$
- c)  $4 + 4$
- d)  $5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5$
- e)  $6 + 6 + 6 + 6$
- f)  $7 + 7 + 7 + 7$

### 0.3.2

Draw boxes to find the answer to the multiplications.

**Example**



- a)  $4 \cdot 5$
- b)  $8 \cdot 3$
- c)  $2 \cdot 9$
- d)  $5 \cdot 6$
- e)  $7 \cdot 8$

### 0.3.3

- a) Will an integer multiplied by 2 always result in an even number or an odd number?
- b) Will an even number multiplied by 5 always result in an even number or an odd number? What digit will always be positioned at the one-place?
- c) Will an odd number multiplied by 5 always result in an even number or an odd number? What digit will always be positioned at the one-place?