

# Exercise 1

1. What is the decimal representation of each of the following unsigned binary integers?
  - a. 00110101
  - b. 10010110
  - c. 11001100
2. What is the sum of each pair of binary integers?
  - a.  $10101111 + 11011011$
  - b.  $10010111 + 11111111$
  - c.  $01110101 + 10101100$
3. What is the decimal representation of each of the following 8-bit signed binary numbers?
  - a. 10110101
  - b. 00101010
  - c. 11110000
4. What is the decimal representation of each of the following signed binary numbers? Without calculation
  - a. 10000000
  - b. 11111111
  - c. 01111111

5. What is the hexadecimal representation of each of the following binary numbers?
- a. 0011 0101 1101 1010
  - b. 1100 1110 1010 0011
  - c. 1111 1110 1101 1011
6. What is the binary representation of the following hexadecimal numbers?
- a. 0126F9D4
  - b. 6ACDFA95
  - c. F69BDC2A
7. Calculate binary 00001101 minus 00000111.
8. Calculate **-126 - 3** after converting each number to 8-bit binary number.