

## Answers 2

1. Convert these binary numbers to decimal (base 2 to base 10):

a)  $10101010_2$  b)  $11110000_2$  c)  $0_2$

Answers: 170, 240, 0

2. Convert these decimal numbers to binary (base 10 to base 2):

a)  $3000_{10}$  b)  $2048_{10}$

Answers: 101110111000, 100000000000

3. Check your answers above using Python.

4. Convert these binary numbers to hexadecimal (base 2 to base 16):

a)  $1111\ 1110\ 1110\ 1101\ 1011\ 1110\ 1110\ 1111_2$  b)  $1100\ 0000\ 1111\ 1110\ 1110_2$

Answers: FEEDBEEF, COFFEE

5. Convert this hexadecimal numbers to binary (base 16 to base 2):

**DECAF123**<sub>16</sub>

Answer: 1101 1110 1100 1010 1111 0001 0010 0011

6. Check your answers above using Python.

7. Find the character with ASCII code 73.

Answer: 'I'

8. Convert the letter A into its ASCII code.

Answer: 65

9. What do the ASCII codes 97, 115, 99, 105, and 105 spell?

Answer: "ascii"

10. Check you answers above using Python.