

# Sistemas Digitais

## Bases de numeração – soluções

1. (a)  $2058_{(10)} = 100000001010_{(2)}$   
(b)  $24_{(10)} = 11000_{(2)}$   
(c)  $15.134_{(10)} = 1111.0010001001_{(2)}$   
(d)  $0.456_{(10)} = 0.0111010010_{(2)}$
2. (a)  $1011010_{(2)} = 90_{(10)}$   
(b)  $100001110_{(2)} = 270_{(10)}$   
(c)  $10.0110_{(2)} = 2.375_{(10)}$   
(d)  $0.101_{(2)} = 0.625_{(10)}$
3. (a)  $10101010001.100100101011_{(2)} = 111101.210223_{(4)}$   
(b)  $10101010001.100100101011_{(2)} = 2521.4453_{(8)}$   
(c)  $10101010001.100100101011_{(2)} = 551.92B_{(16)}$   
(d)  $10101010001.100100101011_{(2)} = 1AH.IAO_{(32)}$
4. (a)  $A6_{(16)} = 10100110_{(2)} = 166_{(10)}$   
(b)  $29_{(16)} = 00101001_{(2)} = 41_{(10)}$   
(c)  $B0F1_{(16)} = 1011000011110001_{(2)} = 45297_{(10)}$   
(d)  $C23E_{(16)} = 1100001000111110_{(2)} = 49726_{(10)}$
5. (a)  $3480_{(10)} = 110110011000_{(2)} = D98_{(16)} = 6630_{(8)}$   
(b)  $2157_{(16)} = 2011113_{(4)}$   
(c)  $21011_{(3)} = 234_{(9)}$   
(d)  $1100010111_{(2)} = 1427_{(8)}$