1-6. What is the decimal equivalent of the largest binary integer that can be obtained with (a) 11 bits and (b) 25 bits?

Answer:

(a) \[ n = 2^b - 1 = 2^{11} - 1 = 2047 \]

(b) \[ n = 2^b - 1 = 2^{25} - 1 = 33,554,431 \]