

Answers to Even-Numbered Review Questions

Prelude to Programming

Chapter 2

2.	5
4.	10
6.	0
8.	scaled, exponent
10.	10^{-3}
12.	B
14.	D
16.	A
18.	D
20.	B
22.	T
24.	F
26.	F
28.	F
30.	T
32.	(a) 1110_2 (b) 111110_2 (c) 1111011010_2 (d) 1011011000000_2
34.	(a) 420 (b) 67
36.	(a) 564 (b) 4397
38.	(a) $12F_{16}$ (b) $100F_{16}$
40.	(a) AAA_{16} (b) $0FCD6_{16}$
42.	(a) $E8_{16}$ (b) $1FF_{16}$
44.	(a) 00001010_2 (b) 00101011_2
46.	(a) 00100010_2 (b) 10100111_2
48.	(a) 00010111_2 (b) 10001001_2
50.	(a) 0.1011_2 (b) 0.0001_2
52.	(a) 100000.0110_2 (b) 1000011111.0001_2
54.	(a) 10001000_2 (b) 01111011_2
56.	$2^7 \times 1.01010101101$
58.	(a) 43794000 (b) +249.25

Challenges	
2.	(a) $12_{10} = 1Y_{12}$ (b) $563_{10} = 3XY_{12}$ (c) $2832_{10} = 1780_{12}$
4.	(a) 1101101010110110 (b) $(2^x - N) = 2^{16} - 9546 = 55990$ $55990_{10} = 1101101010110110_2$