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CPE 185

Homework 9

HOMEWORK 9

1. Record the following as binary floating-point numbers PACKED 32-BIT IEEE
representation:

a. 7.3   40 E9 00 0A

b. -1/4

   BE 80 00 00

c. -120.3125

  C2 F0 A0 00

d. 17/64

 3E 88 00 00

2. The following floating-point numbers are given in base 2 scientific notation. First
normalize the numbers and then convert them to packet floating-point representation.

a. 100110.011 x 2

3

   44 19 80 00

b. (-)0.001101 x 2

−5

   BC 68 00 00

c. (-)110.11 x 2

−16

   B8 EC 00 00

d. 0.111001 x 2

8

   43 72 00 00

3. Each of the following numbers is given in packed floating-point representation. Write out the number as a decimal number.

a. C1800000   -16

b. 419E0000

   75

c. C0E00000

-7

d. 44640000

   56