

HW5

QUESTION 1

Problem 1a. The answer is _____. Do not round the number.

11.8125

4 points

QUESTION 2

Problem 1b. The answer is _____. Do not round the number.

0.21875

4 points

QUESTION 3

Problem 2a. The significand is _____. The answer is a binary number with fraction, starting with 0 or 1.

1.0111101

4 points

QUESTION 4

Problem 2a. The exponent in decimal is _____.

3

4 points

QUESTION 5

Problem 2b. The significand is _____. The answer is a binary number with fraction, starting with 0 or 1.

1.11

4 points

QUESTION 6

Problem 2b. The exponent in decimal is _____.

-3

4 points

QUESTION 7

Problem 3a. The significand in the normalized binary representation is _____. Enter a binary number with fraction. Do not include trailing 0's.

1.1100101001

4 points

QUESTION 8

Problem 3a. The actual exponent in the normalized binary representation is _____ in decimal.

11

4 points

QUESTION 9

Problem 3a. The final answer in decimal is ____.

3666

4 points

QUESTION 10

Problem 3b. The decimal representation of the significand in the normalized binary representation is ____.

1.75

4 points

QUESTION 11

Problem 3b. The actual exponent in the normalized representation is ____ in decimal.

-131

4 points

QUESTION 12

Problem 4a. The bits in the exponent field are ____.

01111000

4 points

QUESTION 13

Problem 4a. The 4 hexadecimal digits representing the higher 16 bits of the single-precision number are ____.

BC7D

4 points

QUESTION 14

Problem 4b. The bits in the exponent field are ____.

10001000

4 points

QUESTION 15

Problem 4b. The 4 hexadecimal digits representing the higher 16 bits of the single-precision number are ____.

C44F

4 points

QUESTION 16

Problem 4c. The bits in exponent field are ____.

10010110

4 points

QUESTION 17

Problem 4c. The 4 hexadecimal digits representing the higher 16 bits of the single-precision number are ____.

4B7F

4 points

QUESTION 18

Problem 4c. The number is ____ in decimal.

16777215

4 points

QUESTION 19

Problem 5b. The answer is ____.

3.3

4 points

QUESTION 20

Problem 5c. The answer is ____.

1.18

4 points

QUESTION 21

Problem 5d. The answer is ____.

2.25

4 points

QUESTION 22

Problem 5e. The answer is ____.

1.47

4 points

QUESTION 23

Problem 6a. The speedup is ____.

1.25

4 points

QUESTION 24

Problem 6b. The speedup is ____.

1.44

4 points

QUESTION 25

Problem 6c. The speedup is ____.

2.01

4 points