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COMP 273 - Siddiqi

Assignment 1

Sept 30.20

Q.1.1.1)  $741_{10} \rightarrow ?_2$

$$741/2 = 370 \quad R=1$$

$$370/2 = 185 \quad R=0$$

$$185/2 = 92 \quad R=1$$

$$92/2 = 46 \quad R=0$$

$$46/2 = 23 \quad R=0$$

$$23/2 = 11 \quad R=1$$

$$11/2 = 5 \quad R=1$$

$$5/2 = 2 \quad R=1$$

$$2/2 = 1 \quad R=0$$

$$1/2 = 0 \quad R=1$$

$$0/2 = 0 \quad R=0$$

01011100101

Answer:

1011100101

Q.1.1.2)  $741_{10} \rightarrow ?_{16}$

$$741/16 = 46 \quad R = 5_{16} = 5 \quad 02E5$$

$$46/16 = 2 \quad R = 14_{16} = E$$

$$2/16 = 0 \quad R = 2_{16} = 2$$

$$0/16 = 0 \quad R = 0_{16} = 0$$

Answer:

2E5

Q.1.1.3)  $1.3515625_{10} \rightarrow ?_2$

$$1_{10} = 001_2, \quad 0.3515625 \times 2 = 0.703125$$

$$0.703125 \times 2 = 1.40625$$

$$0.40625 \times 2 = 0.8125$$

$$0.8125 \times 2 = 1.625$$

$$0.625 \times 2 = 1.25$$

$$0.25 \times 2 = 0.50$$

$$0.50 \times 2 = 1.00$$

$$0.00 \times 2 = 0.00$$

001.01011010

Answer:

1.0101101