

## 1 True or False (5 Pts)

1. T / F : There are two unique digits in the binary number system.
2. T / F : The motherboard transports information from RAM to the CPU.
3. T / F : False  $\rightarrow$  True
4. T / F : A graphics card is a required component of a computer.
5. T / F : Unlike memory, storage will be emptied when the computer is turned off.

## 2 Show Your Work

### Problem 1 (3 Pts)

Convert the decimal number 352 to binary (Show your work):

### Problem 2 (3 Pts)

Convert the binary number 1011011 to decimal (Show your work):

**Problem 3 (4 Pts)**

Compute the truth table for the following boolean expression:

$$X \wedge Y \iff Y \vee Z$$

**3 Short Answer****Question 1 (2.5 Pts)**

Describe why programming languages are important:

**Question 2 (2.5 Pts)**

Explain the difference between Storage and Memory in computers: