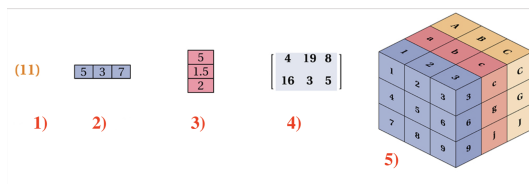


CSSE 386 – Data Mining with Programming  
 Rose-Hulman Institute of Technology

Worksheet 16

Name (Print): \_\_\_\_\_ Section: \_\_\_\_\_

1. PyTorch is an \_\_\_\_\_ machine learning framework that facilitates tensor computation on GPU and CPU using a \_\_\_\_\_
2. Identify the terms



- 1)
  - 2)
  - 3)
  - 4)
  - 5)
3. 1) Tensors are \_\_\_\_\_ (similar to NumPy arrays) that can run on GPUs
  - 2) The base class for neural network layers and models in PyTorch is called: \_\_\_\_\_
  - 3) \_\_\_\_\_ are responsible for updating the model's parameters
  4. ReLU (activation function) stands for \_\_\_\_\_
  5. ReLU function takes a single number as an input, returning \_\_\_\_\_ if the input is negative, and the \_\_\_\_\_ if the input is positive
  6. 1) What is the  $\text{relu}(-5)$  =
  - 2) What is the  $\text{relu}(10)$  =
  7. Sigmoid function maps input  $x$  to a value between \_\_\_\_\_
  8. 1) What is the  $\text{sigmoid}(0.2)$  =
  - 2) What is the  $\text{sigmoid}(0.9)$  =