

Week 1 Sample Oral Assessment Questions

CSE151B SS1 2026

Below are questions that will be similar to what you'll see on this week's oral assessment. As mentioned in class, you'll be asked two questions—first an “understand” question, and then an “experiment” question. For questions where we imagine there are a few possible phrasings, there are multiple sample acceptable answers listed.

Understand:

1. [Topic: Pytorch Shape]

```
data = torch.tensor([
    [0, 1],
    [2, 3],
    [4, 5]
])
```

Q: What dimensions would data.shape output?

Sample acceptable answers: torch.Size([3, 2]), 3 by 2, 3 rows 2 columns, etc.

2. [Topic: Pytorch Tensor Datatypes]

```
data = torch.tensor([
    [0.11111111, 1],
    [2, 3],
    [4, 5]
])
```

Q: What is the datatype of this tensor?

Sample acceptable answers: dtype=torch.float32, float

3. [Topic: Pytorch Indexing]

```
x = torch.Tensor([
    [[1, 2], [3, 4]],
    [[5, 6], [7, 8]],
    [[9, 10], [11, 12]]
])
```

Q: What is the output of x[1]?

A: [[5, 6],
[7, 8]]

4. [Topic: Pytorch Shape]

```
data = torch.tensor([
    [0, 1],
    [2, 3]
])
print(data.reshape(4))
```

Q: What would be the output of this code snippet?

Sample acceptable answers: [0, 1, 2, 3], a 1d array from 0 to 3

Experiment:

1. [Topic: Pytorch Tensor Datatypes]

```
data = torch.tensor([
    [0, 1],
    [2, 3],
    [4, 5]
])
```

Q: What would we add to this declaration to store these values as floats?

Sample acceptable answers: .0 at the end of each number, add dtype=torch.float64 at the end

2. [Topic: Pytorch Tensor Operations]

```
rr = torch.arange(1, 4)
rr+2

tensor([3, 4, 5])
```

Q: What would be the output of rr + 1?

A: [2, 3, 4]

3. [Topic: Pytorch Indexing]

```
x = torch.Tensor([
    [[1, 2], [3, 4]],
    [[5, 6], [7, 8]],
    [[9, 10], [11, 12]]
])

x[0][0][1]

tensor(2.)
```

Q: What would we change about this code to index the element "1" in x?

A: x[0][0][0]