Congratulations! You passed!

Grade received 100% **To pass** 80% or higher

Go to next item

1. True or False: Computer processors are basically only capable of performing mathematical operations. **1 / 1 point**

- (•) True
- ( ) False

Correct

2. Select all the true statements about how characters are represented in computers. **1 / 1 point**

- [x] An ASCII mapping is used to convert a character to a number.

Correct

- [x] Most of the time when writing code, we do not have to spend much time considering the numerical values of text.

Correct
Correct! Most coding tools we utilize are capable of abstracting away this conversion, allowing us to write code in text, and handling the text to number conversion on their own.

- [ ] It is relatively uncommon to encounter algorithms whose purpose is to do math on lengths of text.
- [ ] Computers are capable of doing math directly on characters without an intermediate step.

3. Which of the following is true of a pixel? (Select all that apply) **1 / 1 point**

- [ ] They are always encoded in images as tuples.
- [ ] They are encoded the same way across all image formats.
- [x] They are small 1-color units of a 2D grid that we use to represent images on a screen.

Correct

- [x] They are typically encoded by the amount of red, blue, and green they contain on a scale from 0 to 255.

Correct

4. Which of the following is true of compression? (select all that apply) **1 / 1 point**

- [x] Compression is a concept of doing math to a file to reduce the amount of bits used to encode it.

Correct

- [ ] All common image formats utilize some kind of compression.
- [ ] Video compression is usually accomplished by compressing a sequence of still images individually, and then adding the compressed audio files to the sequence of images.
- [x] All common video formats utilize some kind of compression.

Correct
Correct, video files would wind up being prohibitively large without some manner of compression for typical applications