

CSE 160 Section 1 Problems

1. For each expression, write the resultant value and the data type of the value (for instance, Integer)

- a. 42 integer
- b. 72.333 float
- c. 10.4 float
- d. True bool
- e. True bool
- f. False bool
- g. "Carpe diem." string
- h. True bool
- i. 8.0 float

2. For each line, is this an expression, a statement, or neither:

- a. expression
- b. neither
- c. statement
- d. statement
- e. statement
- f. expression
- g. expression
- h. statement
- i. expression

4. (Preview for Friday) Make a temperature conversion chart, from Fahrenheit to Centigrade, for these Fahrenheit values: 30, 40, 50. (Hint: $\text{cent} = (\text{fahr} - 32) / 9.0 * 5$) Your program output should look something like this, with Fahrenheit first, then the Centigrade equivalent:

```
30 -1.11
40 4.44
50 10.0
```

```
fahr = 30
cent = (fahr - 32) / 9.0 * 5
print(fahr, cent)
fahr = 40
cent = (fahr - 32) / 9.0 * 5
```

```
print(fahr, cent)
fahr = 50
cent = (fahr - 32) / 9.0 * 5
print(fahr, cent)
```

Where can you spot repetition in your code? If the calculation for Centigrade was actually $cent = (fahr - 32) / 9.0 * 7$ how many lines of your code would need to change?

In our solution three lines would need to change, as that's how many times we copied the conversion equation. Loops are a better way to do this without copying a lot of our code. We'll learn how to use them on Friday.