Chapter 2 – Extra Practice

Extra Practice

Extra practice is for those who would like to do some extra practice projects to further hone their skills learned in each assignment. There are no additional points to be gained by completing these projects.

Pay Check Calculator

Create a program that calculates a user's weekly gross and take-home pay.

```
Pay Check Calculator

Hours Worked:    35
Hourly Pay Rate: 14.50

Gross Pay:       507.5
Tax Rate:        18%
Tax Amount:      91.35
Take Home Pay:   416.15
```

Specifications

- The formula for calculating gross pay is:

  gross pay = hours worked * hourly rate

- The formula for calculating tax amount is:

  tax amount = gross pay * (tax rate / 100)

- The formula for calculating take home pay is:

  take home pay = gross pay – tax amount

- The tax rate should be 18% but the program should store the tax rate in a variable so that you can easily change the tax rate later, just by changing the value that's stored in the variable.
- The program should accept decimal entries like 35.5 and 14.25.
- Assume the user will enter valid data.
- The program should round the results to maximum of two decimal places.

Tip Calculator

Create a program that calculates the tip for a meal at a restaurant.

```
Tip Calculator

Cost of meal: 52.31
Tip percent:  20

Tip amount:   10.46
Total amount: 62.77
```

Specifications

- The formula for calculating the tip amount is:

  tip = cost of meal * (tip percent / 100)

- The program should accept decimal entries like 52.31 and 15.5.
- Assume the user will enter valid data.
- The program should round the results to maximum of two decimal places.

Price Comparison

Create a program that compares the unit prices for two sizes of laundry detergent sold at a grocery store.

```
Price Comparison

Price of 64 oz size: 5.99
Price of 32 oz size: 3.50

Price per oz (64 oz): 0.09
Price per oz (32 oz): 0.11
```

Specifications

- The formula for calculating price per ounce is:

  price per ounce = price / ounces

- Assume the user will enter valid data.
- The program should round the results to maximum of two decimal places.