

## Extra Exercise 1: Temperature Converter

Write a script that will convert temperatures from Fahrenheit to Celsius and display a table of the values.

- Take 3 inputs from the user: a starting temperature, an ending temperature, and an increment value.
- Make sure that the values are valid. Possible errors are a temperature that's too low (-459.69 Fahrenheit is the lowest possible temperature, or "absolute zero") or an ending temperature that's less than the beginning temperature. You might also want to use a regular expression match to make sure that the values entered are actually numbers. Print any error messages to STDERR.
- Print out two columns of data; one with the temperature in F and the other in C. Use a loop to create a separate row for the starting value, the ending value, and all of the incremented values in between. Note: The formula to convert Fahrenheit to Celsius is:  $C = (F - 32) / 1.8$
- Were you able to format the output in a nice way? Don't forget that you can output HTML - either for use as a web-based script or just to be written out to a file that you can view with a web browser on your local computer.

## Extra Exercise 2: Playing Cards

Write a script to deal from a deck of playing cards.

- The first step will be to build a "deck of cards". The best way is to use nested foreach loops to iterate through each of the 13 faces for each of the 4 suits. That makes up the 52 "cards", which you can store in an array.
- Use the srand() and rand() functions to pick 10 random cards from the deck and display their values on the screen. Note: srand() should make your script fairly random but look at the "Why aren't my random numbers random?" question in **perfaq4** for more information on how computers aren't really too good at being "random".
- Consider whether it's okay to deal the same card twice in the same hand. In other words, does the card need to be "removed" from the deck once it's dealt? What array function would you use to remove a card from the middle of the deck?

## Extra Exercise 3: Restaurant Waiting List

Write a script that the host at a restaurant could use to manage the customer waiting list.

Use the ideas of stacks and queues that I talked about in class to create and manipulate an array of customers. The host of the restaurant should be able to do the following tasks:

- Add a new customer to the waiting list
- Let a customer into the restaurant (removing them from the list)
- And if you're ambitious, you could add the ability to add/remove a customer in the middle of the list (hint: check out the `splice()` function)