

1. Write a function to read in a list of pig energies from a file and store them in a list (this handout calls these lists “pig lists”). Return the pig list at the end. Get `pigs1.txt` from my public folder or make up your own file.

```
def read_pigs_from_file(filename):
```

```
Ex: read_pigs_from_file("pigs1.txt") returns [1, 3, 5, 3, 1]
```

2. Write a function to return True if all the pigs have been defeated, which happens when all of their energies are reduced to zero.

```
def all_defeated(pig_list):
```

```
Ex: all_defeated([1, 3, 5]) returns False
```

```
Ex: all_defeated([0, 0, 0]) returns True
```

3. A *red bird* is the simplest type of bird you can launch at the pigs. It is launched with a specific pig target in mind. When a red bird hits its target, it decreases that pig’s energy by one, unless the pig’s energy is already zero. Write a function `launch_red_bird` that takes a pig list and a target (specified as an index in the pig list) as parameters. This function should decrease the target pig’s energy by one and return the updated pig list. Hint: you don’t need a loop for this.

```
def launch_red_bird(pig_list, position):
```

```
Ex: launch_red_bird([1, 3, 5], 2) returns [1, 3, 4]
```

4. A *blue bird* is much more powerful than a red bird: a blue bird doesn’t target one pig, it targets all of the pigs and decreases all of their energies by one. Write `launch_blue_bird` that takes a pig list and decreases all the pigs’ energies by one, unless they’re already zero. Return the updated pig list.

```
Ex: launch_blue_bird([1, 3, 5]) returns [0, 2, 4]
```

5. A *purple bird*, when launched, seeks out the pig with the largest amount of energy and reduces that specific pig’s energy to zero all at once. Write `launch_purple_bird` which takes a pig list and returns a new pig list reflecting the updated energies after the purple bird is launched.

```
Ex: launch_purple_bird([1, 3, 5]) returns [1, 3, 0]
```

```
Ex: launch_purple_bird([1, 3, 5, 7, 4]) returns [1, 3, 5, 0, 4]
```

6. An *orange bird* seeks out the pig with the smallest amount of non-zero energy and reduces that specific pig’s energy to zero all at once. Write `launch_orange_bird` which takes a pig list and finds the pig with the minimum amount of energy (but still greater than zero), sets that pig’s energy to zero, and returns the updated pig list.

```
Ex: launch_orange_bird([1, 3, 5]) returns [0, 3, 5]
```

```
Ex: launch_orange_bird([0, 5, 7, 2, 4]) returns [0, 5, 7, 0, 4]
```