

**University of Pittsburgh**  
**Department of Electrical and Computer Engineering**  
**ECE 0302: Data Structures and Algorithms**

**In-Class Exercise 3: Egyptian Powers**

Instructions: "Egyptian Powers" is an algorithm that computes powers by a recurrence relation. Use the relationship shown to derive a recursive version.

```
int fancyPower(int n, int m){  
    // Your code here...  
}
```

For even values of n:

$$x^n = (x^2)^{\frac{n}{2}}$$

For odd values of n:

$$x^n = x \cdot (x^2)^{\frac{n-1}{2}}$$

Submission: submit a zipped folder to Canvas.