Practice Problems

```
anAlgorithm( int n)
{
   // if (x) is an elementary
   // operation
   if (x) {
      some work done
      by n² elementary
      operations;
   } else {
      some work done
      by n³ elementary
      operations;
   }
}
```

- True or false
  - The algorithm takes time in $O(n^2)$ F
  - The algorithm takes time in $\Omega(n^2)$ T
  - The algorithm takes time in $O(n^3)$ T
  - The algorithm takes time in $\Omega(n^3)$ F
  - The algorithm takes time in $\Theta(n^3)$ F
  - The algorithm takes time in $\Theta(n^2)$ F
  - The algorithm takes worst case time in $O(n^3)$ T
  - The algorithm takes worst case time in $\Omega(n^3)$ T
  - The algorithm takes worst case time in $\Theta(n^3)$ T
  - The algorithm takes best case time in $\Omega(n^3)$ F