

5.5

- overflow occurs when array has 2^i elements
- doubling the size of the array will require $3 \cdot 2^i$ cyber dollars
- when doubling at 2^i elements, we can use cyber-dollars at positions 2^{i-1} to $2^i - 1$, giving us 2^{i-1} positions
- so for the doubling, we need $\frac{3 \cdot 2^i}{2^{i-1}}$ cyber-dollars per position, giving 6 cyber-dollars per positions.
- And we need one more cyber-dollar for the operation itself, giving 7 cyber-dollars in total charged per operation