

Example 5.4. Let $P(i) = 2^i$. Then $\sum_{i=1}^4 P(i) = \sum_{i=1}^4 2^i = 2^1 + 2^2 + 2^3 + 2^4$.

Problem 5.5. Compute $\sum_{i=0}^3 2i + 1$ and $\sum_{i=0}^3 1$.

Problem 5.6. Prove that $\sum_{i=1}^n (i + 1)2^i = n2^{n+1}$ for $n \in \mathbb{N}$.