Norwegian University of Science
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1 Homework Set 4

$\boxed{1}$ Grimaldi's book (5. ed., Exercises 4.1): solve **Exercise 2**

$\boxed{2}$ Use the principle of induction to show that for all $n \in \mathbb{Z}^+$, $\sum_{i=1}^{n} i^3 = (\frac{n(n+1)}{2})^2$.

$\boxed{3}$ Use the principle of induction to show that for all $n \in \mathbb{Z}^+$, $n^3 + 3n^2 + 2n$ is a multiple of of 6.

$\boxed{4}$ Grimaldi's book (5. ed., Exercises 4.1): solve **Exercise 4**

$\boxed{5}$ Grimaldi's book (5. ed., Exercises 4.1): solve **Exercise 17**

$\boxed{6}$ Grimaldi's book (5. ed., Exercises 4.1): solve **Exercise 11 a,b,c**