

MATH310 Groupwork 2022-07-27

NAME:

1. Define the recursive sequence

$$a_1 = 1, a_2 = 4 \text{ and } a_n = 2a_{n-1} - a_{n-2} \text{ for } n \geq 3.$$

Use strong induction to prove that $a_n = 3n - 2$ for all $n \in \mathbb{N}$.

Solution:

2. Use strong induction to prove that any postage greater than or equal to 12 cents can be made from 4 and 5 cent stamps.

Solution: