

NYU Computer Science Bridge HW7

Summer 2023 Name: Jacky Choi

Question 3

Exercise 8.2.2 b

$f(n) = n^{(3/2)}$ Prove that it is not true that $f = \Omega(n^2)$

Exercise 8.3.5 a

Exercise 8.3.5 b

Exercise 8.3.5 c

Exercise 8.3.5 d

Exercise 8.3.5 e

Question 4

Exercise 5.1.2 b
Exercise 5.1.2 c

Exercise 5.3.2 a

Exercise 5.3.3 b
Exercise 5.3.3 c

Exercise 5.2.3 a
Exercise 5.2.3 b

Question 5

Exercise 5.4.2 a
Exercise 5.4.2 b

Exercise 5.5.3 a
Exercise 5.5.3 b
Exercise 5.5.3 c
Exercise 5.5.3 d
Exercise 5.5.3 e
Exercise 5.5.3 f
Exercise 5.5.3 g

Exercise 5.5.5 a

Exercise 5.5.8 c
Exercise 5.5.8 d
Exercise 5.5.8 e
Exercise 5.5.8 f

Exercise 5.6.6 a
Exercise 5.6.6 b

Question 6

Exercise 5.7.2 a
Exercise 5.7.2 b

Exercise 5.8.4 a
Exercise 5.8.4 b

Question 7

How many one-to-one functions are there from a set with five elements to sets with the following number of elements?

- a. 4
- b. 5
- c. 6
- d. 7