CSC165H1: Problem Set 0

Due Wednesday September 20 before 10pm

Q2.

CSC165H1
Title: Mathematical Expression and Reasoning for Computer Science
Instructor: Danny Heap

Q3.

$S_1 \setminus S_2 = \{16, 18, 20, 22, 24, \ldots\}$

Q4.

p	q	s	$(p \wedge q) \Rightarrow s$
T	T	T	T
T	F	T	T
T	F	F	T
F	T	T	T
F	T	F	T
F	F	T	T
F	F	F	T
T	T	F	F

Q5.

$3^{x-2} = n^x$

$\dfrac{3^{x-2}}{n^x} = 1$

$\dfrac{3^x}{n^x} \cdot \dfrac{1}{3^2} = 1$

$\dfrac{3^x}{n^x} = 9$

$\log_3(\dfrac{3}{n})^x = 2$

$x\log_3 3 - x\log_3 n = 2$

$x = \dfrac{2}{1 - \log_3 n}$