Assignment 9 (4/18)

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Problem 1

Problems 9.2.$(2, 3, 5, 12, 23, 24, 25, 30, 36)$.

Problem 2

Let $\{F_n\}_{n \geq 1}$ be the Fibonacci sequence defined as $F_n = F_{n-1} + F_{n-2}$, $F_1 = F_2 = 1$.

(a) Define $b_n = \frac{F_{n+1}}{F_n}$. Assume that the sequence $\{b_n\}$ converges to l. Find l.

(b) Find $\lim\limits_{n \to \infty} \frac{F_{n+2}}{F_n}$.