

Please print your name:

Problem 1. Determine the following limits.

(a)
$$\lim_{n \to \infty} \frac{2}{n} =$$

(b)
$$\lim_{n \to \infty} \frac{7n^2 - 8n + 1}{2n^2 + 3} =$$

(c)
$$\lim_{n \to \infty} \sqrt{\frac{2n}{n+1}} =$$

(d)
$$\lim_{n \to \infty} \sin\left(\frac{\pi}{2} + \frac{1}{n}\right) =$$

Problem 2. Determine the following limit: $\lim_{n\to\infty} \left(\frac{3}{n}\right)^{1/n}$

(Make sure to show all your work!)