

Math 1300-005 - Spring 2017

Limits Involving Infinity - 2/1/17

Guidelines: Please work in groups of two or three. Please show all work and clearly denote your answer.

1. Compute the following limits.

(a) $\lim_{x \rightarrow 3} \frac{7 - x}{(3 - x)^4}$

(b) $\lim_{x \rightarrow \infty} \frac{x^3 - 5x}{2x^3 - x^2 + 4}$

2. Compute the following limits.

(a) $\lim_{x \rightarrow 2^+} e^{3/(2-x)}$ [Hint: first consider $\lim_{x \rightarrow 2^+} 3/(2-x)$]

(b) $\lim_{x \rightarrow \infty} \frac{x + x^3 + x^5}{1 - x^2 + x^4}$