

September 13, 2002

Show all work for credit.

Leave all answers as exact answers unless otherwise stated.

1. Compute the following limits using the limit laws. Show every step.

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

(b) 
$$\lim_{t \rightarrow -3} \frac{t^2 - 9}{t + 3}$$

(c) 
$$\lim_{h \rightarrow 0} \frac{\sqrt{h+4} - 2}{h}$$