Properties of Limits

Recall: Determine the velocity at 4 seconds of an object with position function $s(t) = 10t^2 - 20t$.

Properties of Limits: techniques used to solve limits

1.

2.

3.

4.

5.

6.

7.

Ex. 1 Evaluate the following limits.

a) $\lim_{x\to 3} 4x^2 - 2x$

b) $\lim_{x\to 2} 4$

c) $\lim_{x\to 3} \dfrac{x^2 - 2x - 3}{x - 3}$

d) $\lim_{x\to 0} \dfrac{\sqrt{x+9} - 3}{x}$

e) $\lim_{x\to 0} \dfrac{\sqrt{x+4} - 2}{3x}$

f) $\lim_{x\to 0}\dfrac{(x+27)^{1/3}-3}{x}$

g) $\lim_{x\to 3}\dfrac{|x-3|}{x-3}$

h) $\lim_{x\to 2}(3x^2+4x-1)$

i) $\lim_{x\to -1}\dfrac{3x^3-2x+1}{4x^2+4x-6}$