Name: _____   Date: _____

Learning Goal 2.2	Limits at infinity and the definition of the derivative

More Questions – Solutions

1. Find the following limits at infinity.

a. $\lim\limits_{x \to \infty} \dfrac{2x^2 - 3x + 7}{x^2 + 47x + 1}$

b. $\lim\limits_{x \to \infty} \dfrac{2x^2 + 3}{5x^2 + x}$

c. $\lim\limits_{x \to \infty} x^3 - x$

d. $\lim\limits_{x \to -\infty} \dfrac{5x^3 - 3x^2 + 1}{x^2 + 2x + 4}$

e. $\lim\limits_{x \to \infty} \dfrac{5x^3 - 3x^2 + 1}{x^4 + 2x + 4}$

f. $\lim\limits_{x \to \infty} \dfrac{6}{\sqrt{x^3}}$

g. $\lim\limits_{x \to \infty} \cos x$

h. $\lim\limits_{x \to \infty} \dfrac{2^x}{x^2}$