$$f(x) = \frac{2x^3 - 12x^2 + 7x - 28}{2x^2 + 5}$$

$$= \underbrace{x - 6}_{Q(x)} + \frac{2x + 2}{2x^2 + 5} \rightarrow R(x)$$

$$2x^2 + 5 \;\overline{)\; 2x^3 - 12x^2 + 7x - 28}$$

$$x - 6$$

$$2x^3 \qquad + 5x$$

$$-12x^2 + 2x - 28$$

$$-12x^2 \qquad - 30$$

$$2x + 2$$

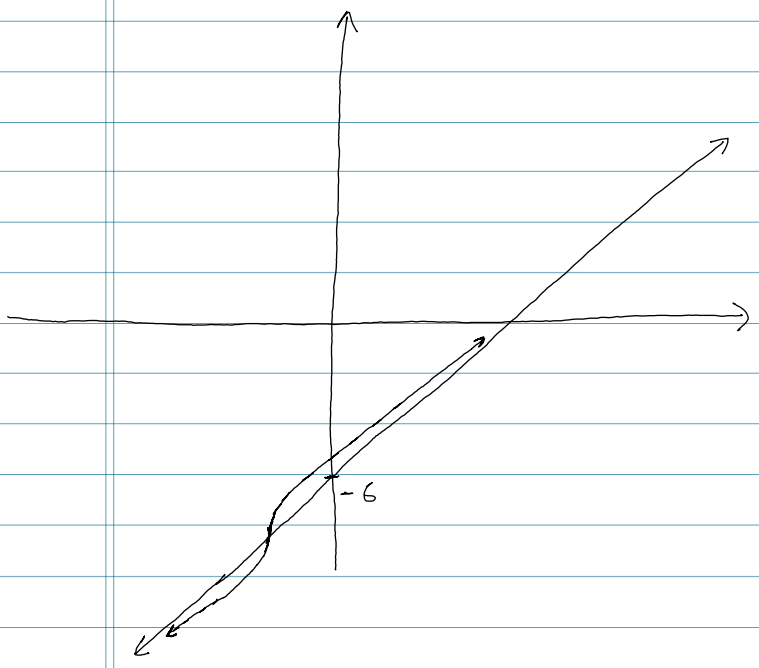
$$\lim_{x \to \infty} \frac{R(x)}{2x^2 + 5} = \lim_{x \to \infty} \frac{2x + 2}{2x^2 + 5}$$

$$= \lim_{x \to \infty} \frac{\frac{x}{x^2}}{\frac{2 + \frac{2}{x}}{2 + \frac{5}{x^2}}}$$

$$= \lim_{x \to \infty} \frac{\frac{1}{x}}{\frac{2 + \frac{2}{x}}{2 + \frac{5}{x^2}}} \quad \frac{2 + \frac{2}{x} \rightarrow 2}{2 + \frac{5}{x^2} \rightarrow 2}$$

$\frac{1}{x} \rightarrow 0$ $\qquad$ $\frac{2}{2} \rightarrow 1$

$$= 0$$



Table

x	$f(x)$	$x - 6$
10	4.1	4
100	94.0101	94
1000	994.001	994
-10	-16.0878	-16
-100	-106.01	-106
-1000	-1006.001	-1006