

B206 — Transitions to Higher Maths

Chapter 13

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Section 13.2

6. Prove that $\lim_{x \rightarrow 1} (4x^2 + 1) = 5$.

Section 13.4

4. Use Exercise 3 with a limit law to prove that if $\frac{f(x)}{g(x)}$ is a rational function (a polynomial divided by a polynomial), and $g(c) \neq 0$, then $\lim_{x \rightarrow c} \frac{f(x)}{g(x)} = \frac{f(c)}{g(c)}$.

Section 13.7

2. Prove that $\left\{ \frac{2n^2+1}{3n-1} \right\}$ diverges to ∞