5.13 Limits of indeterminate forms

Checklist

What you should know

By the end of this subtopic you should be able to:

- use l'Hôpital's rule to find limits of the indeterminate forms $\frac{0}{0}$ and $\frac{\infty}{\infty}$

  if $\lim_{x \to a} f(a) = \lim_{x \to a} g(a) = 0$ or $\lim_{x \to a} f(a) = \lim_{x \to a} g(a) = \pm\infty$, and if $g'(x) \neq 0$,

  then $\lim_{x \to a} \frac{f(x)}{g(x)} = \lim_{x \to a} \frac{f'(x)}{g'(x)}$, provided the latter limit exists

- rearrange expressions into the indeterminate form $\frac{0}{0}$ or $\frac{\infty}{\infty}$.