## MA251: Limits

1. Create a symbolic function

$$
f_{1}(t)=\frac{1.5}{1+t^{2}}
$$

and evaluate the function for 5 equally spaced points between 1 and 5 .
2. Plot the function $f_{1}(t)$ for $-5 \leq t \leq 7$.
3. Create a symbolic function

$$
f_{2}(t)=-\frac{3 t}{\left(1+t^{2}\right)^{2}}
$$

and evaluate the function for 5 equally spaced points between 1 and 5 .
4. Plot the function $f_{2}(t)$ for $-5 \leq t \leq 7$.
5. Use hold to plot $f_{1}$ and $f_{2}$ on the same plot.
6. Add labels for the $x$-axis and $y$-axis, and add a title and legend. The commands are xlabel, ylabel, title, legend respectively. You can type help command to get more information.
7. Evaluate both $f_{1}$ and $f_{2}$ as $t$ goes to 0 .

