- Standard 1.1: Let $f(x) = \cos\left(\frac{\pi}{x}\right)$. Construct a table of values for $f(x)$, with $x = \pm 0.1, \pm 0.01, \pm 0.001$. From your table, can you conclude anything about $\lim_{x\to 0} f(x)$? Explain.
- Standard 1.2: Suppose you know that $\lim_{x\to 2} f(x) = -1$ and $\lim_{x\to 3} g(x) = 6$. Determine the following limits if possible.

$$\lim_{x\to 2}(3f(x) + g(x)) \qquad \lim_{x\to 2} \frac{(f(x))^3}{g(x)} \qquad \lim_{x\to 2} \sqrt{f(x)g(x)}$$

  Justify your answer using properties of limits.
- Standard 1.3: Evaluate the following limits:

$$\lim_{x\to 3} \frac{x^3 + 8}{x^2 + x - 2} \quad \text{and} \quad \lim_{x\to 2} \frac{(x-1)^7}{x^2 + 2x}$$

- Standard 1.4: Evaluate $\lim_{x\to 0} \frac{\sin(2x)}{\sin(3x)}$