First Name: _____ Last Name: _____

Student-No: _____ Section: _____

Very short answer questions

1. 2 marks Each part is worth 1 mark. Please write your answers in the boxes.

   (a) Evaluate $\tan\left(\frac{\pi}{3}\right)$.

   Answer:

   (b) Compute $\lim_{t\to -1}\left(\frac{t-2}{t+3}\right)$.

   Answer:

Short answer questions — you must show your work

2. 4 marks Each part is worth 2 marks.

   (a) Find all solutions to $x^3 - 3x^2 - x + 3 = 0$

   (b) Compute the limit $\lim_{x\to 2}\frac{x-2}{x^2-4}$

Long answer question — you must show your work

3. [4 marks] Compute the limit $\lim_{x \to 1} \dfrac{\sqrt{x+2} - \sqrt{4-x}}{x-1}$.

First Name: _____ Last Name: _____

Student-No: _____ Section: _____

Very short answer questions

1. 2 marks Each part is worth 1 marks. Please write your answers in the boxes.

   (a) Compute $\tan\left(\frac{\pi}{6}\right)$.

   Answer:

   (b) Compute $\lim_{t\to -2}\left(\frac{t-5}{t+4}\right)$.

   Answer:

Short answer questions — you must show your work

2. 4 marks Each part is worth 2 marks.

   (a) Find all solutions to $x^3 - x^2 - 4x + 4 = 0$

   (b) Compute the limit $\lim_{x\to 3}\frac{x-3}{x^2-9}$

Long answer question — you must show your work

3. [4 marks] Compute the limit $\lim_{x \to 3} \dfrac{\sqrt{x-2} - \sqrt{4-x}}{x-3}$.

First Name: _____ Last Name: _____

Student-No: _____ Section: _____

Very short answer questions

1. 2 marks Each part is worth 1 mark. Please write your answers in the boxes.

   (a) Evaluate $\csc\left(\frac{\pi}{3}\right)$.

   Answer:

   (b) Compute $\lim_{t\to -1}\left(\frac{t^2}{t-1}\right)$.

   Answer:

Short answer questions — you must show your work

2. 4 marks Each part is worth 2 marks.

   (a) Let $f(x) = 3x^2 - 7x - 3$ and $g(x) = 2x^2 - 6x + 3$. Find all values of x for which $f(x) = g(x)$.

   (b) Compute the limit $\lim_{x\to -2}\dfrac{x+2}{x^2-4}$

Long answer question — you must show your work

3. [4 marks] Compute the limit $\lim_{x \to 1} \dfrac{\sqrt{3x+5} - \sqrt{2x+6}}{x-1}$.

First Name: _____ Last Name: _____

Student-No: _____ Section: _____

Very short answer questions

1. [2 marks] Each part is worth 1 mark. Please write your answers in the boxes.

   (a) Evaluate $\tan\left(\frac{3\pi}{4}\right)$.

   Answer:

   (b) Compute $\lim_{t\to 2}\sqrt{2t^3-16}$.

   Answer:

Short answer questions — you must show your work

2. [4 marks] Each part is worth 2 marks.

   (a) Find all x such that $x^2+5x+6>0$.

   (b) Compute the limit $\lim_{x\to -7}\frac{2x+14}{x^2-49}$

Long answer question — you must show your work

3. [4 marks] Compute the limit $\lim_{x \to -1} \dfrac{x+1}{\sqrt{x^2+15}-4}$.