



+1/1/60+

Calculus ex02

10 Apr. 2019

- ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0
- ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1
- ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2
- ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3
- ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4
- ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5
- ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6
- ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7
- ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8
- ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: .....

**Question 1 ♣** Solve the equation  $\sin x = 0$  ( $0 \leq x \leq 2\pi$ ).

- ☒0 ☐ $\frac{\pi}{6}$  ☐ $\frac{\pi}{4}$  ☐ $\frac{\pi}{3}$  ☐ $\frac{\pi}{2}$  ☐ $\frac{2}{3}\pi$  ☐ $\frac{3}{4}\pi$
- ☐ $\frac{5}{6}\pi$  ☒ $\pi$  ☐ $\frac{7}{6}\pi$  ☐ $\frac{5}{4}\pi$  ☐ $\frac{4}{3}\pi$  ☐ $\frac{3}{2}\pi$  ☐ $\frac{5}{3}\pi$
- ☐ $\frac{7}{4}\pi$  ☐ $\frac{11}{6}\pi$  ☒ $2\pi$  ☐None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -\frac{1}{2}$  ( $0 \leq x \leq 2\pi$ ).

- ☐0 ☐ $\frac{\pi}{6}$  ☐ $\frac{\pi}{4}$  ☐ $\frac{\pi}{3}$  ☐ $\frac{\pi}{2}$  ☐ $\frac{2}{3}\pi$  ☐ $\frac{3}{4}\pi$
- ☐ $\frac{5}{6}\pi$  ☐ $\pi$  ☒ $\frac{7}{6}\pi$  ☐ $\frac{5}{4}\pi$  ☐ $\frac{4}{3}\pi$  ☐ $\frac{3}{2}\pi$  ☐ $\frac{5}{3}\pi$
- ☐ $\frac{7}{4}\pi$  ☒ $\frac{11}{6}\pi$  ☐ $2\pi$  ☐None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = 1$  ( $0 \leq x \leq 2\pi$ ).

- ☒0 ☐ $\frac{\pi}{6}$  ☐ $\frac{\pi}{4}$  ☐ $\frac{\pi}{3}$  ☐ $\frac{\pi}{2}$  ☐ $\frac{2}{3}\pi$  ☐ $\frac{3}{4}\pi$
- ☐ $\frac{5}{6}\pi$  ☐ $\pi$  ☐ $\frac{7}{6}\pi$  ☐ $\frac{5}{4}\pi$  ☐ $\frac{4}{3}\pi$  ☐ $\frac{3}{2}\pi$  ☐ $\frac{5}{3}\pi$
- ☐ $\frac{7}{4}\pi$  ☐ $\frac{11}{6}\pi$  ☒ $2\pi$  ☐None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{1}{2}$  ( $0 \leq x \leq 2\pi$ ).

- ☐0 ☐ $\frac{\pi}{6}$  ☐ $\frac{\pi}{4}$  ☐ $\frac{\pi}{3}$  ☐ $\frac{\pi}{2}$  ☒ $\frac{2}{3}\pi$  ☐ $\frac{3}{4}\pi$
- ☐ $\frac{5}{6}\pi$  ☐ $\pi$  ☐ $\frac{7}{6}\pi$  ☐ $\frac{5}{4}\pi$  ☒ $\frac{4}{3}\pi$  ☐ $\frac{3}{2}\pi$  ☐ $\frac{5}{3}\pi$
- ☐ $\frac{7}{4}\pi$  ☐ $\frac{11}{6}\pi$  ☐ $2\pi$  ☐None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = -\sqrt{3}$ , ( $0 \leq x \leq 2\pi$ ).

- ☐0 ☐ $\frac{\pi}{6}$  ☐ $\frac{\pi}{4}$  ☐ $\frac{\pi}{3}$  ☐ $\frac{\pi}{2}$  ☒ $\frac{2}{3}\pi$  ☐ $\frac{3}{4}\pi$
- ☐ $\frac{5}{6}\pi$  ☐ $\pi$  ☐ $\frac{7}{6}\pi$  ☐ $\frac{5}{4}\pi$  ☐ $\frac{4}{3}\pi$  ☐ $\frac{3}{2}\pi$  ☒ $\frac{5}{3}\pi$
- ☐ $\frac{7}{4}\pi$  ☐ $\frac{11}{6}\pi$  ☐ $2\pi$  ☐None of these answers are correct.



## Calculus ex02

10 Apr. 2019

☐ 0 ☐ 0 ☐ 0 ☐ 0 ☐ 0 ☐ 0 ☐ 0 ☐ 0  
☐ 1 ☐ 1 ☐ 1 ☐ 1 ☐ 1 ☐ 1 ☐ 1 ☐ 1  
☐ 2 ☐ 2 ☐ 2 ☐ 2 ☐ 2 ☐ 2 ☐ 2 ☐ 2  
☐ 3 ☐ 3 ☐ 3 ☐ 3 ☐ 3 ☐ 3 ☐ 3 ☐ 3  
☐ 4 ☐ 4 ☐ 4 ☐ 4 ☐ 4 ☐ 4 ☐ 4 ☐ 4  
☐ 5 ☐ 5 ☐ 5 ☐ 5 ☐ 5 ☐ 5 ☐ 5 ☐ 5  
☐ 6 ☐ 6 ☐ 6 ☐ 6 ☐ 6 ☐ 6 ☐ 6 ☐ 6  
☐ 7 ☐ 7 ☐ 7 ☐ 7 ☐ 7 ☐ 7 ☐ 7 ☐ 7  
☐ 8 ☐ 8 ☐ 8 ☐ 8 ☐ 8 ☐ 8 ☐ 8 ☐ 8  
☐ 9 ☐ 9 ☐ 9 ☐ 9 ☐ 9 ☐ 9 ☐ 9 ☐ 9

← Please encode your student number, and write your first and last names below.

First name and last name: ..... ..

**Question 1 ♣** Solve the equation  $\sin x = \frac{1}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☒  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☒  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -\frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☒  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = \frac{1}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☒  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☒  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{1}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☒  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☒  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = \frac{1}{\sqrt{3}}$ , ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☒  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.



## Calculus ex02

10 Apr. 2019

☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0  
☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1  
☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2  
☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3  
☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4  
☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5  
☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6  
☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7  
☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8  
☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: ..... ..

**Question 1 ♣** Solve the equation  $\sin x = \frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☒  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☒  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -1$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☒  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = \frac{1}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☒  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☒  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☒  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = -\frac{1}{\sqrt{3}}$ , ( $0 \leq x \leq 2\pi$ ).

☒ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☒  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.



+4/1/57+

Calculus ex02

10 Apr. 2019

- ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0  
☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1  
☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2  
☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3  
☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4  
☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5  
☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6  
☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7  
☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8  
☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: .....

**Question 1 ♣** Solve the equation  $\sin x = 1$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☒  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -1$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☒  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = \frac{1}{2}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☒  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☒  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{\sqrt{3}}{2}$  ( $0 \leq x \leq 2\pi$ ).

- ☒ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = -\frac{1}{\sqrt{3}}$ , ( $0 \leq x \leq 2\pi$ ).

- ☒ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☒  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.



## Calculus ex02

10 Apr. 2019

☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0  
☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1  
☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2  
☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3  
☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4  
☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5  
☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6  
☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7  
☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8  
☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: . . . . .

**Question 1 ♣** Solve the equation  $\sin x = 1$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☒  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -1$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☒  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = 1$  ( $0 \leq x \leq 2\pi$ ).

☒ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☒  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{\sqrt{3}}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☒  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = 1$ , ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☒  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.



## Calculus ex02

10 Apr. 2019

- ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0
- ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1
- ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2
- ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3
- ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4
- ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5
- ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6
- ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7
- ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8
- ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: . . . . .

**Question 1 ♣** Solve the equation  $\sin x = 1$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☒  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -1$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☒  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = 0$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☒  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☒  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☒  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = -\frac{1}{\sqrt{3}}$ , ( $0 \leq x \leq 2\pi$ ).

- ☒ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☒  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.



+7/1/54+

Calculus ex02

10 Apr. 2019

- ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0
- ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1
- ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2
- ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3
- ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4
- ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5
- ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6
- ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7
- ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8
- ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: . . . . .

**Question 1 ♣** Solve the equation  $\sin x = 1$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☒  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -\frac{\sqrt{3}}{2}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☒  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☒  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = \frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☒  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☒  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☒  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = -\frac{1}{\sqrt{3}}$ , ( $0 \leq x \leq 2\pi$ ).

- ☒ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☒  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.



## Calculus ex02

10 Apr. 2019

00 00 00 00 00 00 00 00  
01 01 01 01 01 01 01 01  
02 02 02 02 02 02 02 02  
03 03 03 03 03 03 03 03  
04 04 04 04 04 04 04 04  
05 05 05 05 05 05 05 05  
06 06 06 06 06 06 06 06  
07 07 07 07 07 07 07 07  
08 08 08 08 08 08 08 08  
09 09 09 09 09 09 09 09

← Please encode your student number, and  
write your first and last names below.

First name and last name: .....

**Question 1 ♣** Solve the equation  $\sin x = \frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☒  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☒  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -\frac{\sqrt{3}}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☒  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☒  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = 0$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☒  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☒  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{\sqrt{3}}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☒  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = -\frac{1}{\sqrt{3}}$ , ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☒  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☒  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.





## Calculus ex02

10 Apr. 2019

☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0  
☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1  
☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2  
☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3  
☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4  
☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5  
☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6  
☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7  
☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8  
☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: ..... ..

**Question 1 ♣** Solve the equation  $\sin x = \frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☒  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☒  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -\frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☒  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = \frac{\sqrt{3}}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☒  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☒  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{\sqrt{3}}{2}$  ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☒  $\frac{5}{6}\pi$  ☐  $\pi$  ☒  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = \sqrt{3}$ , ( $0 \leq x \leq 2\pi$ ).

☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☒  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$   
☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☒  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$   
☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.



## Calculus ex02

10 Apr. 2019

- ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0 ☐0
- ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1 ☐1
- ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2 ☐2
- ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3 ☐3
- ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4 ☐4
- ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5
- ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6
- ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7
- ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8 ☐8
- ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9 ☐9

← Please encode your student number, and write your first and last names below.

First name and last name: .....

**Question 1 ♣** Solve the equation  $\sin x = 1$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☒  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 2 ♣** Solve the equation  $\sin x = -\frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☒  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 3 ♣** Solve the equation  $\cos x = \frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☒  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☒  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 4 ♣** Solve the equation  $\cos x = -\frac{1}{\sqrt{2}}$  ( $0 \leq x \leq 2\pi$ ).

- ☐ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☒  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☒  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☐  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.

**Question 5 ♣** Solve the equation  $\tan x = -\frac{1}{\sqrt{3}}$ , ( $0 \leq x \leq 2\pi$ ).

- ☒ 0 ☐  $\frac{\pi}{6}$  ☐  $\frac{\pi}{4}$  ☐  $\frac{\pi}{3}$  ☐  $\frac{\pi}{2}$  ☐  $\frac{2}{3}\pi$  ☐  $\frac{3}{4}\pi$
- ☐  $\frac{5}{6}\pi$  ☐  $\pi$  ☐  $\frac{7}{6}\pi$  ☐  $\frac{5}{4}\pi$  ☐  $\frac{4}{3}\pi$  ☐  $\frac{3}{2}\pi$  ☐  $\frac{5}{3}\pi$
- ☐  $\frac{7}{4}\pi$  ☒  $\frac{11}{6}\pi$  ☐  $2\pi$  ☐ None of these answers are correct.