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☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5 ☐5
☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6 ☐6
☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7 ☐7
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← Please encode your student number, and write your first and last names below.

First name and last name:

Question [sinp01] ♣ Solve the equation $\sin x = 0$ ($0 \leq x \leq 2\pi$).

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

Question [sinp02] ♣ Solve the equation $\sin x = \frac{1}{2}$ ($0 \leq x \leq 2\pi$).

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

Question [sinp03] ♣ Solve the equation $\sin x = \frac{1}{\sqrt{2}}$ ($0 \leq x \leq 2\pi$).

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

Question [sinp04] ♣ Solve the equation $\sin x = \frac{\sqrt{3}}{2}$ ($0 \leq x \leq 2\pi$).

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

Question [sinp05] ♣ Solve the equations $\sin x = 1$ ($0 \leq x \leq 2\pi$).

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

Question [sinm02] ♣ Solve the equation $\sin x = -\frac{1}{2}$ ($0 \leq x \leq 2\pi$).

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

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Question [sinm03] ♣ Solve the equation $\sin x = -\frac{1}{\sqrt{2}}$ ($0 \leq x \leq 2\pi$).

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

Question [sinm04] ♣ Solve the equation $\sin x = -\frac{\sqrt{3}}{2}$ ($0 \leq x \leq 2\pi$).

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

Question [sinm05] ♣ Solve the equation $\sin x = -1$ ($0 \leq x \leq 2\pi$).

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

Question [cosp01] ♣ Solve the equation $\cos x = 1$ ($0 \leq x \leq 2\pi$).

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

Question [cosp02] ♣ Solve the equation $\cos x = \frac{\sqrt{3}}{2}$ ($0 \leq x \leq 2\pi$).

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

Question [cosp03] ♣ Solve the equation $\cos x = \frac{1}{\sqrt{2}}$ ($0 \leq x \leq 2\pi$).

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

Question [cosp04] ♣ Solve the equation $\cos x = \frac{1}{2}$ ($0 \leq x \leq 2\pi$).

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

Question [cosp05] ♣ Solve the equation $\cos x = 0$ ($0 \leq x \leq 2\pi$).

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

Question [cosm01] ♣ Solve the equation $\cos x = -\frac{1}{2}$ ($0 \leq x \leq 2\pi$).

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

Question [cosm02] ♣ Solve the equation $\cos x = -\frac{1}{\sqrt{2}}$ ($0 \leq x \leq 2\pi$).

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

Question [cosm03] ♣ Solve the equation $\cos x = -\frac{\sqrt{3}}{2}$ ($0 \leq x \leq 2\pi$).

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

Question [tan01] ♣ Solve the equation $\tan x = 0$, ($0 \leq x \leq 2\pi$).

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

Question [tan02] ♣ Solve the equation $\tan x = \frac{1}{\sqrt{3}}$, ($0 \leq x \leq 2\pi$).

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

Question [tan03] ♣ Solve the equation $\tan x = 1$, ($0 \leq x \leq 2\pi$).

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

Question [tan04] ♣ Solve the equation $\tan x = \sqrt{3}$, ($0 \leq x \leq 2\pi$).

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

Question [tan05] ♣ Solve the equation $\tan x = -\sqrt{3}$, ($0 \leq x \leq 2\pi$).

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

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Question [tan06] ♣ Solve the equation $\tan x = -1, (0 \leq x \leq 2\pi)$.

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

Question [tan07] ♣ Solve the equation $\tan x = -\frac{1}{\sqrt{3}}, (0 \leq x \leq 2\pi)$.

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