

Wave Function I - answers

① a) $k=5, \alpha=36.9^\circ$ b) $k=5, \alpha=323.1^\circ$ c) $k=2, \alpha=120^\circ$

d) $k=\sqrt{8}, \alpha=322.2^\circ$ e) $k=\sqrt{65}, \alpha=240.3^\circ$

② a) $\sqrt{17} \cos(x-76.0^\circ)$ b) $13 \sin(x-337.4^\circ)$

c) $4 \sin(x-45^\circ)$

③ a) Max 3, 70°
Min -3, 250°

b) Max $\sqrt{3}$, 60°
Min $-\sqrt{3}$, 240°

c) Max 5, 75°
Min -5, 165°

d) Max 11, 113.3°
Min -1, 53.3°

④ a) Max 13, 22.6° b) Max 5, 143.1°

⑤ a) $21.8^\circ, 118.2^\circ$ b) $113.4^\circ, 346.6^\circ$ c) $85.3^\circ, 229.5^\circ$

d) $45^\circ, 98.1^\circ, 225^\circ, 278.1^\circ$