Q#1

a) $\sin\theta = \frac{15}{17}$

$\cos\theta = \frac{8}{17}$

$\tan\theta = \frac{15}{8}$

$\theta \doteq 61.93^\circ$

b) $\sin\theta = \frac{5\sqrt{34}}{34}$

$\cos\theta = -\frac{3\sqrt{34}}{34}$

$\tan\theta = -\frac{5}{3}$

$\theta \doteq 120.96^\circ$

c) $\sin\theta = -\frac{3}{5}$

$\cos\theta = -\frac{4}{5}$

$\tan\theta = \frac{3}{4}$

$\theta \doteq 216.87^\circ$

d) $\sin\theta = \frac{-5}{13}$

$\cos\theta = \frac{12}{13}$

$\tan\theta = \frac{-5}{12}$

$\theta \doteq 337.38^\circ$

e) $\sin\theta = \frac{-7\sqrt{53}}{53}$

$\cos\theta = \frac{-2\sqrt{53}}{53}$

$\tan\theta = \frac{7}{2}$

$\theta \doteq 254.05^\circ$

f) $\sin\theta = \frac{-2\sqrt{13}}{13}$

$\cos\theta = \frac{3\sqrt{13}}{13}$

$\tan\theta = \frac{-2}{3}$

$\theta \doteq 326.31^\circ$

Q #2

a) $\csc\theta = \frac{\sqrt{61}}{5}$

$\sec\theta = \frac{\sqrt{61}}{6}$

$\cot\theta = \frac{6}{5}$

$\theta \doteq 39.81^\circ$

b) $\csc\theta = \frac{\sqrt{65}}{8}$

$\sec\theta = -\sqrt{65}$

$\cot\theta = -\frac{1}{8}$

$\theta \doteq 97.73^\circ$

c) $\csc\theta = -\frac{\sqrt{10}}{3}$

$\sec\theta = -\sqrt{10}$

$\cot\theta = \frac{1}{3}$

$\theta \doteq 251.57^\circ$

d) $\csc\theta = -\frac{\sqrt{5}}{2}$

$\sec\theta = \sqrt{5}$

$\cot\theta = -\frac{1}{2}$

$\theta \doteq 296.57^\circ$

Q#3 a) $\frac{1}{2}$ b) $\frac{-\sqrt{3}}{2}$ c) $\frac{-\sqrt{3}}{3}$ d) $\sqrt{2}$ e) $-\sqrt{2}$

Q#4

a) $\sin\theta = \frac{4}{5}$

$\cos\theta = \frac{-3}{5}$

$\tan\theta = \frac{-4}{3}$

$\theta \doteq 126.87^\circ$

b) $\sin\theta = \frac{-\sqrt{5}}{3}$

$\cos\theta = -\frac{2}{3}$

$\tan\theta = \frac{\sqrt{5}}{2}$

$\theta \doteq 228.19^\circ$

c) $\sin\theta = \frac{-5\sqrt{29}}{29}$

$\cos\theta = \frac{2\sqrt{29}}{29}$

$\tan\theta = \frac{-5}{2}$

$\theta \doteq 291.80^\circ$

d) $\sin\theta = \frac{-3}{7}$

$\cos\theta = \frac{-2\sqrt{10}}{7}$

$\tan\theta = \frac{3\sqrt{10}}{20}$

$\theta \doteq 205.38^\circ$

Q#5 a) 325.15° b) 51.34°

c) $\theta_1 = 126.86^\circ$
$\theta_2 = 233.13^\circ$

d) $\theta_1 = 51.32^\circ$
$\theta_2 = 308.68^\circ$

e) $\theta_1 = 38.66^\circ$, $\theta_2 = 218.66^\circ$

Q #6

a) $\frac{\sqrt{6}}{8}$

b) $\frac{4\sqrt{3}}{3}$

c) 1

d) $\frac{\sqrt{3}}{2}$

e) $\frac{-3}{4}$

f) $\sqrt{2}$