

Adv.

p. 309 #27-32; 43-45

27. $\sin 60^\circ = \frac{\sqrt{3}}{2}$ $\cos 60^\circ = \frac{1}{2}$

a) $\tan 60^\circ = \sqrt{3}$

b) $\sin 30^\circ = \frac{1}{2}$

c) $\cos 30^\circ = \frac{\sqrt{3}}{2}$

d) $\cot 60^\circ = \frac{\sqrt{3}}{3}$

28. $\sin 30^\circ = \frac{1}{2}$

$\tan 30^\circ = \frac{\sqrt{3}}{3}$

a) $\csc 30^\circ = 2$

→ b) $\cot 30^\circ = \sqrt{3}$

c) $\cos 30^\circ = \frac{\sqrt{3}}{2}$

→ d) $\cot 60^\circ = \frac{\sqrt{3}}{3}$

29. $\csc \theta = \frac{\sqrt{13}}{2}$

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

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

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

c) $\tan \theta = \frac{2}{3}$

d) $\sec(90^\circ - \theta) = \frac{\sqrt{13}}{2}$

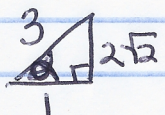
30. $\sec \theta = 5$ $\tan \theta = 2\sqrt{6}$

a) $\cos \theta = \frac{1}{5}$

b) $\cot \theta = \frac{\sqrt{6}}{2}$

c) $\cot \theta = (90^\circ - \theta) = 2\sqrt{6}$

d) $\sin \theta = 2\sqrt{6}$



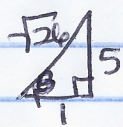
31. $\cos \alpha = \frac{1}{3}$

a) $\sec \alpha = 3$

b) $\sin \alpha = \frac{2\sqrt{2}}{3}$

c) $\cot \alpha = \frac{\sqrt{2}}{4}$

d) $\sin(90^\circ - \alpha) = \frac{1}{3}$



32. $\tan \beta = 5$

a) $\cot \beta = \frac{1}{5}$

b) $\cos \beta = \frac{\sqrt{26}}{26}$

c) $\tan(90^\circ - \beta) = \frac{1}{5}$

d) $\csc \beta = \frac{\sqrt{26}}{5}$

43. a) $\sin 10^\circ = 0.1736$ b) $\cos 80^\circ = 0.1736$

44. a) $\tan 23.5^\circ = 0.4348$ b) $\cot 66.5^\circ = 0.4348$

45. a) $\sin 16.35^\circ = 0.2815$ b) $\csc 16.35^\circ = 3.5523$