Homework 8 Math 48C Mitchell Schoenbrun
9.1 P. 623 #1, 4, 7, 8, 24-28, 31, 32

1.
sin = 4/5
cos=3/5
tan=4/3
csc=5/4
sec=5/3
ctn=4/3

4.
$\sin = 1/\sqrt{5}$
$\cos = 2/\sqrt{5}$
tan = 1/2
$\csc = \sqrt{5}$
$\sec = \sqrt{5}/2$
ctn = 2

7.
sin(A) = 4/5
cos(B) = 4/5
sin(B) = 3/5
cos(A) = 3/5

8.
sin(A) = 3/5
cos(B) = 3/5
sin(B) = 4/5
cos(A) = 4/5

24. $\theta = \cos^{-1}\left(\frac{1}{6}\right) \approx 80.4^\circ$

25. $\theta = \tan^{-1}\left(\frac{4}{5}\right) \approx 38.7^\circ$

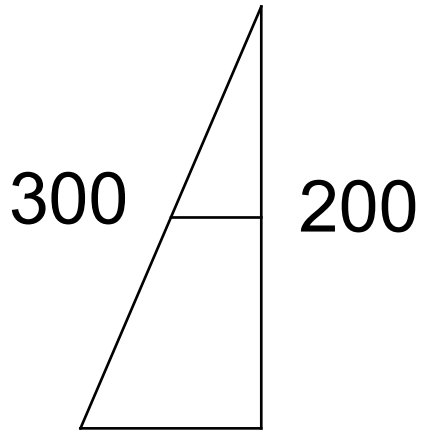
26. $\theta = \sin^{-1}\left(2.5/6\right) \approx 24.6^\circ$

27. $\theta = \cos^{-1}\left(\frac{4}{5}\right) \approx 36.9^\circ$

28. $\theta = \tan^{-1}\left(\frac{4}{3}\right) \approx 53.1^\circ$

31.
$$v = \frac{d}{t} = \frac{500\sin\left(66^\circ\right) ft}{10\sec} \times \frac{60 mph}{88\, ft/\sec} \approx 31\, mph$$
Not Speeding!

42.



angle of elevation = $\sin^{-1}\left(\frac{200}{300}\right) \approx 41.8^\circ$

crossbar = $\frac{\sqrt{300^2 - 200^2}}{2} \approx 111.8\, ft$