

HONORS ANALYSIS
CHAPTER 7
Trigonometric Functions
Assignments

<u>Assignment</u>	<u>Section</u>	<u>Page</u>	<u>Problems</u>
1	9.1	334	1, 3, 5, 7, 9, 10
2	7.1	261	1, 3, 7, 9, 11, 13, 17, 19, 23, 27, 31, 32
3	7.2	264	1 - 13 odd, 14, 15
4	7.2	265	16 - 22, 24
5	7.3	272	1 - 27 odd
6	7.3	273	29 - 43
7	7.4	279	1 - 23 odd
8	7.4	281	26 - 34
9	7.5	285	1 - 5 odd, 13, 15, 17, 23 - 27 odd
10	7.5	285	7 - 12, 14, 18, 21, 22
11	7.6	289	1 - 13 odd,
12	7.6	293	12, 14 - 17, 19 - 25, 27, 28, 30
13	Chapter Test	293	1 - 12

Even Answers

Section 9.1

10a. $\sqrt{3}, 1$ b. $\frac{1}{2}, \frac{\sqrt{3}}{2}, \frac{\sqrt{3}}{3}, \sqrt{3}$

Section 7.1

32. 249 rpm

Section 7.2

14. 4901 rpm

16a. \overline{OS} is \parallel to sun's rays, so alternate interior angles are congruent.

16b. about 250,000 stadia

16c. 4.8%

18. 0.716° or 0.0125 radians
 20. 12 km per hour
 22. 4.4 light years
 24b. 5 24c. 2

Section 7.3

30a. $P\left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right), Q\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$

- 32b. $\cos z \approx \sqrt{1 - z^2}$
 32c. $\cos z \approx 1$ for small values of z .
 34. $<$ 36. $=$ 38. $=$
 40. $<$
 42. $\cos 3, \cos 4, \cos 2, \cos 1$

Section 7.4

26. 3735 miles
 28. 972 miles
 30a. 734 miles per hour
 30b. 899 miles per hour
 32b. 0
 34. $P(\cos t, \sin t) \quad Q(\cos t + \sqrt{16 - \sin^2 t}, 0)$

Section 7.5

- 8a. $n/1$ b. $\frac{n}{4} + n$
 8c. $\frac{n}{2} + n$ d. $\frac{3n}{4} + n$
 14. $\sin x = \frac{7}{25}, \tan x = \frac{7}{24},$
 $\csc x = \frac{25}{7}, \sec = \frac{25}{24}$
 $\cot x = \frac{24}{7}$

Section 7.5 (cont.)

18. $\sin x = \frac{1}{5}, \cos x = \frac{2\sqrt{6}}{5},$
 $\tan x = \frac{\sqrt{6}}{12}, \sec x = \frac{5\sqrt{6}}{12},$
 $\cot x = 2\sqrt{6}$

Section 7.6

- 12a. $\frac{2\sqrt{6}}{5}$ 12b. $\frac{2\sqrt{6}}{5}$
 14a. $\frac{5\sqrt{26}}{26}$ 14b. $\frac{\sqrt{26}}{26}$
 20a. True 20b. Not true
 28. 0