## Chapter 6: CIRCULAR MOTION

READING ASSIGNMENT:  Read Sections:  6.1, 6.2, 6.3

HOMEWORK ASSIGNMENT:

Problems:  1, 2, 7, 8, 9, 11, 12, 14, 16, 17, 18, 21, 23, 25, 38, 39, 40, 45, 52, 64
(Underlined problems will be worked out in class.)

Answers to even-numbered problems for Chapter 6:

2) (a) $1.65 \times 10^3$ m/s;  (b) $6.84 \times 10^3$ s

8) (a) 68.6 N **i** + 784 N **j**;  (b) 0.857 m/s$^2$, inward

12) (a) gravitational force and force exerted by
pail on water; (b) force exerted by pail
(c) 3.13 m/s; (d) water follows parabolic path

14) (a) 4.81 m/s;  (b) 700 N

16) (a) $2.49 \times 10^4$ N; (b) 12.1 m/s

18) (a) 20.6 N; (b) 32.0 m/s$^2$ inward;
(c) 32.2 m/s$^2$ inward and below cord at 5.98$^\circ$ ;
(d) no change; (e) forces same, so accel. is same

38) $1.2 \times 10^3$ N

40) (a) $1.15 \times 10^4$ N up; (b) 14.1 m/s

52) (a) 1975 lb; (b) -647 lb; (c) $mg = mv^2/r$

64) (a) 2.63 m/s$^2$; (b) 201 m; (c) 17.7 m/s