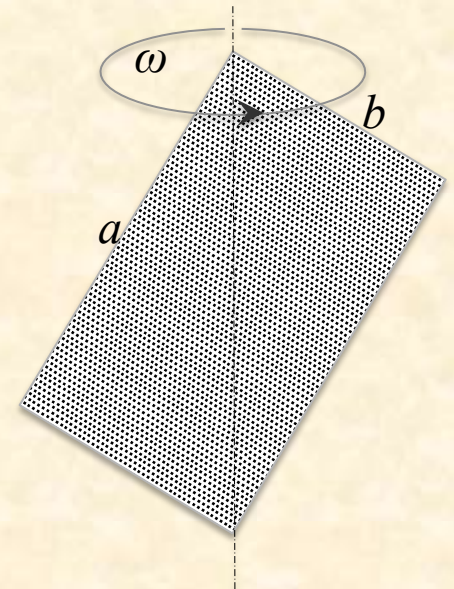


Read RHK Ch. 10; Ch. 17: 17.1-17.7
 K&K Ch. 2: p. 97-100; Ch. 7: 7.1-7.4; Ch. 8: 8.1-8.3; Ch. 10: 10.1, 10.2; Note
 Feynman Ch. 20, 21, 22

Solve

From RHK	Ch. 9	Exercise 29	Problem 8
	Ch. 10	Exercise 27	Problem 5
	Ch. 17	Exercises 14, 36	Problems 3, 4, 11
From K&K	Ch. 6	Problem 6.20	Extra Credit: 6.13
	Ch. 8	Problem 8.2, 8.6	

Problem 1. A thin uniform rectangular sheet, with sides of length a and b , respectively, rotates about one of its diagonals with constant angular speed ω , the axis being fixed in an inertial frame. Find the magnitude and the angle (with the axis of rotation) of the angular momentum about the center of the rectangle.



Problem 2. A damped oscillator is described by the equation

$$\ddot{x} + 2\dot{x} + 5x = 0$$

where x is measured in centimeters and t in seconds.

a) Does it oscillate? If so, find the frequency

b) Write down $x(t)$ satisfying the initial conditions: $x_0 = 4.0$ cm and $\dot{x}_0 = -0.24$ cm/s.