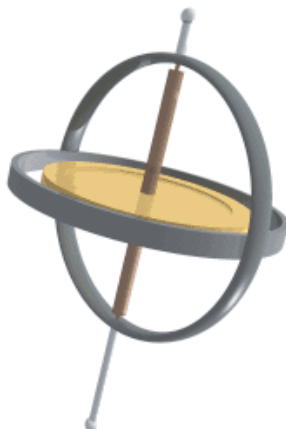


Name:

Date:

Period:

Chapter 8 (Rotational Motion)



Homework Check A (collected Mon, Feb 10)

Angular Quantities p. 222 #1, 3, 4, 6, 7, 10, 13, 14, 16 Complete by Fri, Feb 7

STAMP
HERE
8 POINTS

Constant Angular Acceleration & Rolling pp. 222-223 #17, 18, 21, 23 .. Complete by Mon, Feb 10

Homework Quiz

STAMP
HERE
4 POINTS

Torque p. 223 #24, 26, 27 Complete by Mon, Feb 10

STAMP
HERE
3 POINTS

Answers

- | | | |
|--------------------------------|---|--|
| 1. (a) $\pi/4$ rad = 0.79 rad; | 7. $\omega = 230.34$ rad/s; | 16. $\omega_1/\omega_2 = R_2/R_1$ |
| (b) $\pi/3$ rad = 1.05 rad; | $v = 40.3$ m/s; | 17. -96.3 rad/s ² ; 98 rev |
| (c) $\pi/2$ rad = 1.57 rad; | $a = 9280$ m/s ² | 18. 30,000 rev |
| (d) 2π rad = 6.28 rad; | 10. $v = 1.9$ m/s; $a_C = 3.0$ m/s ² | 21. 33.1 m |
| (e) 2.47π rad = 7.77 rad | 13. 3500 rad/s = 33,000 rpm | 23. 0.533 rad/s ² ; 12.77 s |
| 3. 5.32 km | 14. $\alpha = 4.2$ rad/s ² ; | 24. 86.63 m N |
| 4. -170.1 rad/s ² | $a_C = 134$ m/s ² ; | 26. 40.32 m N; 34.92 m N |
| 6. 9.2 cm | $a_T = 1.3$ m/s ² | 27. $l_1 mg - l_2 mg$ |

Homework will be accepted for full credit until the test. Homework turned in after the test will be accepted for half credit until the next test. *Please remember that you will not be eligible to complete test corrections if you do not turn in your homework.*

Name:

Date:

Period:

Chapter 8 (Rotational Motion)

Homework Check B (collected on Test Day)

Rotational Dynamics pp. 223-225 #30, 32, 40, 41, 45 Complete by Thu, Feb 13

STAMP
HERE
5 POINTS

Rotational KE p. 225 #50, 52 Complete by Fri, Feb 14

STAMP
HERE
2 POINTS

Angular Momentum pp. 225-226 #62, 63, 64, 65 Complete by Mon, Feb 17

STAMP
HERE
4 POINTS

Conceptual Questions p. 220 #1, 2, 3, 9, 10, 11, 12, 13, 16, 19, 20 Complete by Mon, Feb 17

THESE QUESTIONS SHOULD HAVE AT LEAST ONE FULL SENTENCE OF EXPLANATION

STAMP
HERE
4 POINTS

Misconceptual Questions p. 191 #1-13 Complete by test day!

YOU DO NOT NEED TO GET THIS ONE STAMPED, BUT THESE ARE GOOD REVIEW FOR YOUR TEST!

Bonus Problems! #28, 36, 67, 72 Turn in separately on test day!

Test will be on Thu, Feb 20

Problem Answers

30. 1.81 kgm^2

32. 15190 mN

40. -0.0675 mN ; 16.38 s

41. 324 mN ; 129.6 N

45. 31.3 N

50. $13,640 \text{ J}$

52. 48.8 J

62. 1.5

63. $\omega/2$

64. 0.38 rot/s

65. 1.23 kgm^2

Misconceptual Answers

1. C

2. B

3. B

4. C

5. C, E, & F

6. B

7. B

8. B

9. B

10. A

11. C

12. A

13. A