

Name:

Date:

Period:

Chapter 4 (Dynamics)

Homework Check A (collected October 11)

Intro to Forces p. 101 #7, 9 Complete by Mon, Oct 7

STAMP
HERE
2 POINTS

Single-Body Dynamics p. 101 #10, 12, 17, 18 Complete by Mon, Oct 7

STAMP
HERE
5 POINTS

Multi-Body Dynamics pp. 102-103, 106 #20, 25, 33ab, 79, 81 Complete by Fri, Oct 11

Homework Quiz

STAMP
HERE
5 POINTS

Free-Body Diagrams pp. 102, 104 #21, 22, 52 Complete by Fri, Oct 11

DRAW THE FREE-BODY DIAGRAMS ONLY; NOTHING TO CALCULATE

STAMP
HERE
3 POINTS

Answers

- | | | |
|---------------------------------------------|-----------------------------------------|--------------------------------|
| 7. 3134 N | 20. (a) 47 N; (b) 17 N; (c) 0 N | (c) 11,448 N, down |
| 9. 779.5 N | 25. (a) 31.36 N, 62.72 N; | 81. (a) either 45 N or 4.6 kg; |
| 10. 12,600 N | (b) 35.36 N, 70.72 N | (b) 37.4 N or 3.8 kg; |
| 12. 1.84 m/s^2 | 33. (a) 2.72 m/s^2 (b) 0.96 s | (c) No. the minimum force |
| 17. (a) 7.35 m/s^2 ; (b) 1293.6 N | 79. (a) 87,556 N; | needed to lift a 15-lb fish |
| 18. 0.44 m/s^2 | (b) 11,448 N; | would be 15 lbs. |

Homework will be accepted for full credit until the test. Homework turned in after the test will be accepted for half credit until the Unit 3 Test. *Please remember that you will not be eligible to complete test corrections if you do not turn in your homework.*

Chapter 4 (Dynamics)

Homework Check B (collected on Test Day)

Friction pp. 103-104 #36, 37, 42, 44 Complete by _____
MUST INCLUDE PICTURES WITH AXES INDICATED

STAMP
HERE
5 POINTS

Forces at an Angel pp. 102-104 #50abc, 56, 57 Complete by _____

STAMP
HERE
5 POINTS

Conceptual Questions pp. 98-99 #1, 3, 6, 7, 10, 11, 12, 13 Complete by _____
THESE QUESTIONS SHOULD HAVE AT LEAST ONE FULL SENTENCE OF EXPLANATION

STAMP
HERE
5 POINTS

Misconceptual Questions pp. 99-100 #1, 2, 3, 5, 6, 7, 9 Complete by _____
YOU DO NOT NEED TO GET THIS ONE STAMPED, BUT THESE ARE GOOD REVIEW FOR YOUR TEST!

Bonus Problems! #26, 34, 35, 49, 60 Turn in separately on test day!

Test will be on _____.

Problem Answers

- | | | |
|-------------------------|--------------------------------|---------------------------------|
| 36. (a) 64.7 N; (b) 0 N | 50. (b) 62.2 N; | 56. $F_f = 104$ N; $\mu = 0.48$ |
| 37. (a) 0.60; (b) 0.53 | (c) 199.4 N; | 57. (a) 3.7 m/s/s; (b) 9.4 m/s |
| 42. 4.17 m | (d) $F_{Ax} = 70.6$ N, $F_A =$ | |
| 44. 33.6 m/s | 99.8 N | |

Misconceptual Answers

- | | | | | | | |
|------|---------|------|------|------|------|------|
| 1. a | 2. abcd | 3. d | 5. c | 6. c | 7. c | 9. c |
|------|---------|------|------|------|------|------|

Extra Practice

These problems are not required and are not for bonus. Work and answers are available on Schoology.

- Single-Body p. 101 #18; p. 103 #37b
Multi-Body p. 103 #33a