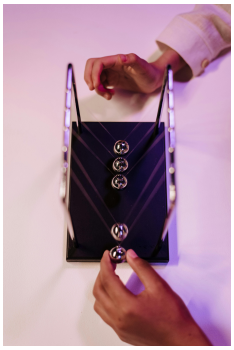
Name: Date: Period:

Chapter 6 (Work & Energy)



All Homework (collected Fri, Dec 13)

Work, KE, PE pp. 164-165 #1, 3, 4, 15 ,16, 26, 27 ..... Complete by Fri, Dec 6

STAMP HERE 5 POINTS

Conservation of Energy pp. 165-167 #31, 32, 33, 37, 38, 47, 49 ..... Complete by Thu, Dec 12

Homework Quiz

STAMP HERE 7 POINTS

Power pp. 167 #57, 60, 61 ..... Complete by Fri, Dec 13

STAMP HERE 3 POINTS

Bonus Problems! #5, 7, 41, 55 ..... Turn in separately.

Answers

1. 20,580 J
3. 2,322 J
4. (a) 1150 J; (b) 6000 J
15. 484 m/s
16. (a) $\sqrt{3}$; (b) 1/4
26. 2,117 J
27. 1.01 m
31. 45.4 m/s
32. 1.27 m
33. 4.89 m/s
37. 1.38×10^5 N/m
38. (a) 7.7 m/s; (b) 25 cm
47. −332.5 J
49. (a) 15.3 m/s; (b) −1.03 N
57. 21.95 s
60. 508.8 N
61. 2,686 N

Equations

$$W = F_{\parallel} d \qquad KE = \frac{1}{2}mv^2 \qquad PE_g = mgy \qquad PE_e = \frac{1}{2}kx^2$$

$$W = \Delta KE \qquad \Sigma E_0 + W_{NC} = \Sigma E \qquad P = \frac{W}{t}$$