Kinematics Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 1 –9. On p. 9 answer questions #1 – 7 (odd)

1. _____   3. _____   5. _____

7. _____

Read p. 10 –15. On p. 15 answer questions #9 – 45 (odd)

9. _____   11. _____   13. _____

15. _____   17. _____   19. _____

21. _____   23. _____   25. _____

27. _____   29. _____   31. _____

33. _____   35. _____   37. _____

39. _____   41. _____   43. _____

45. _____

Read p. 199 –205. On p. 206 answer questions #1 – 7 (odd)

1. _____   3. _____   5. _____

7. _____

Vectors & Projectiles Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 38 - 41. On p. 41 answer questions #182 – 191

182. _____   183. _____   184. _____

185. _____   186. _____   187. _____

188. _____   189. _____   190. _____

191. _____

Forces Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 18 –20. On p. 20 answer questions #47 – 63 (odd)

47. _____	49. _____	51. _____
53. _____	55. _____	57. _____
59. _____	61. _____	63. _____

Read p. 22 –25. On p. 26 answer questions #67 – 119 (odd)

67. _____	69. _____	71. _____
73. _____	75. _____	77. _____
79. _____	81. _____	83. _____
85. _____	87. _____	89. _____
91. _____	93. _____	95. _____
97. _____	99. _____	101. _____
103. _____	105. _____	107. _____
109. _____	111. _____	113. _____
115. _____	117. _____	119. _____

Read p. 30 –31. On p. 31 answer questions #127 – 149 (odd)

127. _____	129. _____	131. _____
133. _____	135. _____	137. _____
139. _____	141. _____	143. _____
145. _____	147. _____	149. _____

Gravity, Circles, Kepler Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 23 –24. On p. 26 answer the following questions

| 72. _____ | 84. _____ | 91. _____ |
| 103. _____ | 116. _____ | 117. _____ |

Read p. 41. On p. 42 answer questions #193 – 215 (odd)

193. _____	195. _____	197. _____
199. _____	201. _____	203. _____
205. _____	207. _____	209. _____
211. _____	213. _____	215. _____

Read p. 54 - 55. On p. 55 answer questions #E1 – E13

E1. _____	E2. _____	E3. _____
E4. _____	E5. _____	E6. _____
E7. _____	E8. _____	E9. _____
E10. _____	E11. _____	E12. _____
E13. _____		

Momentum Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 33 –36. On p. 36 answer questions #151 – 181

151. _____	152. _____	153. _____
154. _____	155. _____	156. _____
157. _____	158. _____	159. _____
160. _____	161. _____	162. _____
163. _____	164. _____	165. _____
166. _____	167. _____	168. _____
169. _____	170. _____	171. _____
172. _____	173. _____	174. _____
175. _____	176. _____	177. _____
178. _____	179. _____	180. _____
181. _____		

Energy Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 57 –59. On p. 59 answer questions #1 – 23 (odd)

1. _____	3. _____	5. _____
7. _____	9. _____	11. _____
13. _____	15. _____	17. _____
19. _____	21. _____	23. _____

Read p. 60 –64. On p. 64 answer questions #25 – 47 (odd)

25. _____	27. _____	29. _____
31. _____	33. _____	35. _____
37. _____	39. _____	41. _____
43. _____	45. _____	47. _____

Read p. 66 –68. On p. 68 answer questions #49 – 79 (odd)

49. _____	51. _____	53. _____
55. _____	57. _____	59. _____
61. _____	63. _____	65. _____
67. _____	69. _____	71. _____
73. _____	75. _____	77. _____
79. _____		

Thermal #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 78 - 79. On p. 79 answer questions #E1 – E11

E1. _____   E2. _____   E3. _____

E4. _____   E5. _____   E6. _____

E7. _____   E8. _____   E9. _____

E10. _____   E11. _____

1. An unknown liquid with a mass of 0.010 kilogram absorbs 0.032 kilojoule of heat. Its temperature rises 8.0 °C, with no change in phase. Calculate the specific heat of the unknown liquid.

2. Calculate the amount of heat needed to change 3.0 kilograms of ice at 0.0 °C to water at 0.0 °C.

3. A 4.75 kilogram sample of aluminum absorbs 26.43 kilojoules of thermal energy. Calculate the temperature change on the sample.

4. A 0.421 kilogram copper pot at 24.5 °C has 0.975 kilogram of water at 96.5 °C poured into it. Calculate the final temperature of the pot and water.

Electrostatics Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 81 – 84. On p. 84 answer questions #1 – 43 (odd)

1. _____   3. _____   5. _____

7. _____   9. _____   11. _____

13. _____   15. _____   17. _____

19. _____   21. _____   23. _____

25. _____   27. _____   29. _____

31. _____   33. _____   35. _____

37. _____   39. _____   41. _____

43. _____

Read p. 89 – 92. On p. 92 answer questions #45 – 65 (odd)

45. _____   47. _____   49. _____

51. _____   53. _____   55. _____

57. _____   59. _____   61. _____

63. _____   65. _____

Name: _____   Date: _____
SI Physics   Circuits Review #1 [15 pts]
Period: _____   Mrs. Nadworny

Circuits Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 94 – 97. On p. 97 answer questions #67 – 99 (odd)

    67. _____   69. _____   71. _____

    73. _____   75. _____   77. _____

    79. _____   81. _____   83. _____

    85. _____   87. _____   89. _____

    91. _____   93. _____   95. _____

    97. _____   99. _____

Read p. 99 – 103. On p. 103 answer questions #101 – 127 (odd)

    101. _____   103. _____   105. _____

    107. _____   109. _____   111. _____

    113. _____   115. _____   117. _____

    119. _____   121. _____   123. _____

    125. _____   127. _____

Name: _____   Date: _____
SI Physics   Magnetism Review #1 [15 pts]
Period: _____   Mrs. Nadworny

Magnetism Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 106 – 108. On p. 108 answer questions #129 – 137 (odd)

    129. _____   131. _____   133. _____

    135. _____   137. _____

Read p. 109 – 111. On p. 111 answer questions #139 – 145 (odd), skip 143

    139. _____   141. _____   145. _____

Read p. 119 – 120. On p. 121 answer questions #E1 –E5.

    E1. _____   E2. _____   E3. _____

    E4. _____   E5. _____

Read p. 120 – 123. On p. 124 answer the following questions.

    E20. _____   E21. _____   E22. _____

    E23. _____   E27. _____   E28. _____

Read p. 128 – 132. On p. 132 answer questions #E55 –E73 (odd), skip E71

    E55. _____   E57. _____   E59. _____

    E61. _____   E63. _____   E65. _____

    E67. _____   E69. _____   E73. _____

Waves Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 136 – 139. On p. 139 answer questions #1 – 33 (odd)

1. _____	3. _____	5. _____
7. _____	9. _____	11. _____
13. _____	15. _____	17. _____
19. _____	21. _____	23. _____
25. _____	27. _____	29. _____
31. _____	33. _____	

Read p. 141 – 142. On p. 142 answer questions #35 – 45 (odd)

35. _____	37. _____	39. _____
41. _____	43. _____	45. _____

Read p. 143 – 145. On p. 145 answer questions #47 – 71 (odd)

47. _____	49. _____	51. _____
53. _____	55. _____	57. _____
59. _____	61. _____	63. _____
65. _____	67. _____	69. _____
71. _____		

Read p. 147 – 149. On p. 149 answer questions #73 – 87 (odd)

73. _____	75. _____	77. _____
79. _____	81. _____	83. _____
85. _____	87. _____	

Reflection and Refraction Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 150 –153. On p. 154 answer questions #89 – 107.

89. _____	90. _____	91. _____
92. _____	93. _____	94. _____
95. _____	96. _____	97. _____
98. _____	99. _____	100. _____
101. _____	102. _____	103. _____
104. _____	105. _____	106. _____
107. _____		

Mirrors and Lenses Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 162 – 163. On p. 163 answer questions #E1 –E8.

E1. _____   E2. _____   E3. _____

E4. _____   E5. _____   E6. _____

E7. _____   E8. _____

Read p. 164 – 170. On p. 170 answer questions #E9 –E41 (odd).

E9. _____   E11. _____   E13. _____

E15. _____   E17. _____   E19. _____

E21. _____   E23. _____   E25. _____

E27. _____   E29. _____   E31. _____

E33. _____   E35. _____   E37. _____

E39. _____   E41. _____

1. A candle is located beyond the center of curvature, C, of a concave spherical mirror having principal focus, F, as shown in the diagram below. Using a well-drawn ray diagram, find the image of the candle. [4 pts]
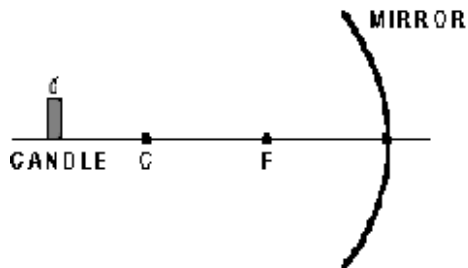
Modern Physics Review #1

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 173 – 174. On p. 174 answer questions #1 – 11 (odd)

1. _____   3. _____   5. _____

7. _____   9. _____   11. _____

Read p. 175 – 179. On p. 179 answer questions #13 – 25 (odd)

13. _____   15. _____   17. _____

19. _____   21. _____   23. _____

25. _____

Read p. 180 – 182. On p. 182 answer questions #27 – 45 (odd)

27. _____   29. _____   31. _____

33. _____   35. _____   37. _____

39. _____   41. _____   43. _____

45. _____

Read p. 187 – 188. On p. 189 answer questions #E1 –E31 (odd).

E1. _____   E3. _____   E5. _____

E7. _____   E9. _____   E11. _____

E13. _____   E15. _____   E17. _____

E19. _____   E21. _____   E23. _____

E25. _____   E27. _____   E29. _____

E31. _____

Name: _____   Date: _____   98. [2 pts]
SI Physics   Kinematics Review #2 [20 pts]
Period: _____   Mrs. Nadworny

Kinematics Review #2

Directions – Read the following pages and answer the questions specified. Write the
number of your selected answer.

On p. 45 answer the following questions.

2. _____   3. _____   5. _____

9. _____   22. _____   25. _____

26. _____   27. _____   28. _____

29. _____

38. [1 pt] _____   _____

54. [2 pts]

55. [1 pt] _____

62. [2 pts]

                                                                99. [1 pt] _____

64. [1 pt] _____   65. [1 pt] _____

81. [4 pts]

Name: _____   Date: _____   88. [1 pt]
SI Physics   Vectors & Projectiles #2 [20 pts]
Period: _____   Mrs. Nadworny

Vectors & Projectiles Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

On p. 45 answer the following questions.

93. [1 pt]

    1. _____   21. _____   34. _____

35. [2 pts]

39. [1 pt] _____

40. [1 pt] _____   41. [1 pt] _____

42. [1 pt]

94. [2 pts]

63. [2 pts]

95. [2 pts]

86. [1 pt]

87. [1 pt] _____

Name: _____   Date: _____   89. [4 pts]
SI Physics   Forces Review #2 [25 pts]
Period: _____   Mrs. Nadworny

Forces Review #2

 Directions – Read the following pages and answer the questions specified. Write the
 number of your selected answer.

On p. 46 answer the following questions.

     8. _____   10. _____   13. _____

     14. _____   17. _____   18. _____   90. [2 pts]

     19. _____   23. _____   24. _____

36. [2 pts]

37. [1 pt] _____   91. [1 pt]

46. [2 pts]

48. [2 pts]

66. [1 pt] _____

67 and 68. [3 pts] Use a scale of 2.0 x 10^{-15} N

92. [2 pts]

69. [1 pt] _____   70. [1 pt] _____

Name: _____   Date: _____

SI Physics   Gravity, Circles Review #2 [25 pts]

Period: _____   Mrs. Nadworny

Gravity, Circles, Kepler Review #2

 Directions – Read the following pages and answer the questions specified. Write the
 number of your selected answer.

On p. 45 answer the following questions.

    4. _____   6. _____   11. _____

    12. _____   15. _____   20. _____

    30. _____   31. _____   32. _____

    33. _____

51. [2 pts]

52. [1 pt] _____

53. [1 pt]

56. [2 pts]

57. [2 pts]

58. [1 pt]

Continued on back

59. [2 pts]

82. [1 pt]

83. [1 pt]

84. [3 pts]

85. [1 pt]

101. [2 pts]

102. [1 pt] _____

Name: _____   Date: _____

SI Physics   Momentum Review #2 [15 pts]

Period: _____   Mrs. Nadworny

Momentum Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

On p. 46 answer the following questions.

     7. _____   16. _____

49. [1 pt]

60. [2 pts]

61. [1 pt] _____

Answer the following questions.

1. Calculate the magnitude of the impulse applied to a 0.75 kilogram cart to change its velocity from 0.50 meters per second east to 2.00 meters per second east. [2 pts]

2. A 3.1 kilogram gun initially at rest is free to move. When a 0.015 kilogram bullet leaves the gun with a speed of 500 meters per second, what is the speed of the gun? [2 pts]

3. A 1200 kilogram car moving at 12 meters per second collides with a 2300 kilogram car that is waiting at rest at a traffic light. After the collision, the cars lock together and slide. Eventually the combined cars are brought to rest by a force of kinetic friction as the rubber tries slide across the dry, level asphalt road surface. Calculate the speed of the locked together cars immediately after the collision.   [2 pts]

4. A student pushes a red car, with a mass of 0.355 kg along the track with a velocity of 0.095 m/s right. It collides with the blue car, which has a mass of 0.710 kg and was also moving right with a speed of 0.045 m/s. After the collision, the red car continues in the same direction at 0.035 m/s. Calculate the speed of the blue car after the collision. [2 pts]

5. A 2.0 kilogram cart moving due east at 6.0 meters per second collides with a 3.0 kilogram cart moving due west. The carts stick together and come to rest after the collision. What was the initial speed of the 3.0 kilogram cart? [2 pts]

Energy Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

On p. 72 answer the following questions

1. _____   2. _____   3. _____

7. _____   9. _____   10. _____

11. _____   13. _____   15. _____

16. _____   17. _____   18. _____

20. _____   23. _____   24. _____

27. _____   28. _____   30. _____

31. _____   32. _____   33. _____

36. [1 pt] _____   38. [1 pt] _____

37. [2 pts]

39. [1 pt]

40. [1 pt]

41. [2 pts]

49. [2 pts]

50. [2 pts]

51. [1 pt] _____

52. [2 pts]

53. [2 pts]

54. [1 pt] _____

58. [1 pt] _____

59. [2 pts]

60. [2 pts]

61. [2 pts]

65. [1 pt] _____

Thermal Energy Review #2

Directions – Answer the following questions.

1. Samples of lead, platinum, silver and tungsten each have a mass of 1.0 kilogram and an initial temperature of 20.°C. If 10. kilojoules of heat are added to each sample, which sample will experience the *smallest* increase in temperature?

    (A) silver, because it has the highest specific heat

    (B) platinum, because it has the lowest heat of vaporization

    (C) lead, because it has the lowest heat of fusion

    (D) tungsten, because it has the highest melting point

2. Equal masses of aluminum and copper, both at 0°C, are placed in the same insulated can of hot water. Which statement describes this system at equilibrium (the net exchange of internal energy is zero)?

    (A) The aluminum has a higher temperature than the copper and water.

    (B) The aluminum, copper and water have the same temperature.

    (C) The copper has a higher temperature than the aluminum and water.

    (D) The water has a higher temperature than the aluminum and copper.

3. Which substance remains a liquid over the *smallest* temperature range?

    (A) lead   (B) copper   (C) iron   (D) silver

4. In a certain process, 400 joules of heat are added to a system and the system simultaneously does 100 joules of work. The change in internal energy of the system is

    (A) 500 J   (B) 300 J   (C) 400 J   (D) 100 J

5. If the volume of a gas is decreased while temperature is constant, which will occur?

    (A) The average kinetic energy of the molecules of the gas will increase.

    (B) The average kinetic energy of the molecules of the gas will decrease.

    (C) The mass of the gas will decrease

    (D) The pressure of the gas will increase

    (E) The pressure of the gas will decrease.

6. Show all of you work with the GUESS method on the back of this page for this question. A 9.50 kilogram sample of ice at – 11.2 °C is heated to steam at 111.2 °C. Calculate the amount of energy needed to do this. [12 pts]

Electrostatics Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

On p. 113 answer the following questions.

    1. _____   2. _____   3. _____

    4. _____

39. [1 pt] _____

47. [2 pts]

48. [2 pts]

49. [1 pt] _____

50. [2 pts]

51. [1 pt]

52. [1 pt]

66. [2 pts]

Name: _____　　　　Date: _____　　　60. [2 pts]

SI Physics　　　　　　　　　Circuits Review #2 [30 pts]

Period: _____　　　　　　　Mrs. Nadworny

Circuits Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

On p. 113 answer the following questions.

5. _____　　　　6. _____　　　　7. _____

8. _____　　　　10. _____　　　11. _____

12. _____　　　15. _____　　　17. _____

18. _____　　　19. _____　　　20. _____

21. _____　　　22. _____　　　23. _____

24. _____　　　25. _____　　　26. _____

27. [1 pt]

28. [1 pt] _____

42 and 43. [2 pts]

44. [1 pt] _____

45. [2 pts]

46. [1 pt] _____

61. [2 pts]

64. [2 pts]

65. [2 pts]

67. [2 pts]

68. [1 pt] _____

69. [2 pts]

70. [1 pt] _____

71. [1 pt] _____

Name: _____   Date: _____
SI Physics   Magnetism Review #2 [15 pts]
Period: _____   Mrs. Nadworny

Magnetism Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 106 – 108. On p. 108 answer questions #130 – 134 (even)

130. _____   132. _____   134. _____

Read p. 109 – 111. On p. 111 answer questions #138 – 142 (even)

138. _____   140. _____   142. _____

Read p. 119 – 120. On p. 120 answer questions #E16 – E19.

E16. _____   E17. _____   E18. _____

E19. _____

Read p. 128 – 132. On p. 132 answer questions #E54 –E74 (even)

E54. _____   E56. _____   E58. _____

E60. _____   E62. _____   E64. _____

E66. _____   E68. _____   E70. _____

E72. _____   E74. _____

1. A potential difference of 12 volts is induced across a 0.20 meter long straight wire as it is moved at a constant speed of 3.0 meters per second perpendicular to a uniform magnetic field. Calculate the strength of the magnetic field. [2 pts]

2. A positively charged particle traveling at 7.5×10^5 meters per second enters a uniform magnetic field perpendicular to the lines of force. While in the 4.0×10^{-2} tesla magnetic field, a net force of 9.6×10^{-15} newton acts on the particle. What is the magnitude of the charge on the particle? [2 pts]

3. A 1.25 meter long wire, which has 250 miliamperes of electron flow running through it, is moving at right angles to 9.31 Tesla magnetic field. Calculate the force acting on the wire. [2 pts]
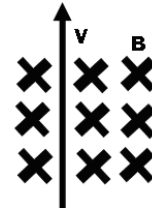
Waves Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

On p. 156 answer the following questions.

1. _____   2. _____   3. _____

46. [1 pt] _____   _____

4. _____   5. _____   6. _____

47. [1 pt]

7. _____   8. _____   9. _____

12. _____   13. _____   15. _____

16. [1 pt]

48. [1 pt]

29. [2 pts]

49. [2 pts]

32. [1 pt]

34. [1 pt] _____

35. [2 pts]

58. [1 pt] _____

59. [1 pt]

36. [1 pt] _____

38. [1 pt] _____

Reflection and Refraction Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 150 –153. On p. 154 answer the following questions.

        10. _____   11. _____   14. _____

20. [1 pt] _____

21. [1 pt]

25. [1 pt] _____

26. [2 pts]

27. [1 pt]

28. [1 pt] _____

30. [1 pt]

31. [1 pt] _____

33. [2 pts]

40. [2 pts]

41. [1 pt]

42. [1 pt] _____

56. [2 pts]

57. [2 pts]

60. [1 pt] _____   _____

61. [2 pts]

62. [1 pt]

Name: _____   Date: _____
SI Physics   Optics Review #2 [15 pts]
Period: _____   Mrs. Nadworny

Mirrors and Lenses Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

Read p. 164 – 170. On p. 170 answer questions #E10 –E42 (even).

E10. _____   E12. _____   E14. _____

E16. _____   E18. _____   E20. _____

E22. _____   E24. _____   E26. _____

E28. _____   E30. _____   E32. _____

E34. _____   E36. _____   E38. _____

E40. _____   E42. _____

Read the following information and answer the questions that follow.

2. A crown glass converging lens has a focal length of 0.10 meter. A 0.070 meter high object is placed 0.30 meter from the lens.
    a. Calculate how far from the lens the image will be formed. [2 pts]

    b. Calculate how tall the image will be. [2 pts]

3. The diagram below represents an object placed two focal lengths from a converging lens. Using a well-drawn ray diagram, find the image of the arrow. [4 pts]

Name: _____   Date: _____
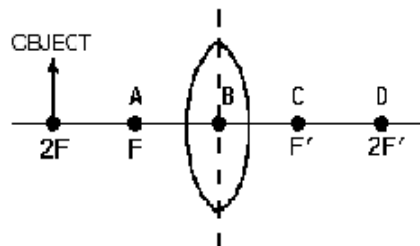
SI Physics   Modern Review #2 [30 pts]

Period: _____   Mrs. Nadworny

Modern Physics Review #2

Directions – Read the following pages and answer the questions specified. Write the number of your selected answer.

On p. 184 answer the following questions

    1. _____   2. _____   3. _____

    4. _____   5. _____   6. _____

    7. _____   8. _____   9. _____

10. [1 pt] _____

11. [2 pts]

12. [1 pt] _____

13. [1 pt] _____

14. [1 pt] _____

15. [2 pts]

17. [2 pts]

18. [1 pt] _____

19. [1 pt] _____

20. [1 pt] _____

21. [1 pt] _____

22. [2 pts]

25. [2 pts]

26. [1 pt] _____

31. [2 pts]

32. [1 pt] _____

33. [1 pt]

38. [2 pts]

39. [2 pts]