Name _____   Date _____

Physics Sample Algebra Problems

1) $d = vt$ $v = 7$ $t = 4$ $d = ?$

2) $d = vt$ $v = 7$ $d = 56$ $t = ?$

3) $v_f = v_i + at$ $v_i = 0$ $a = 4$ $t = 8$ $v_f = ?$

4) $v_f = v_i + at$ $v_i = 10$ $a = 4$ $t = 12$ $v_f = ?$

5) $v_f = v_i + at$ $v_i = ?$ $a = 4$ $t = 12$ $v_f = 60$

6) $v_f = v_i + at$ $v_i = 10$ $a = 4$ $t = ?$ $v_f = 50$

7) $d = v_i t + (1/2)at^2$ $v_i = 0$ $t = 7$ $a = 2$ $d = ?$

8) $d = v_i t + (1/2)at^2$ $v_i = 0$ $t = 4$ $a = ?$ $d = 100$

9) $d = v_i t + (1/2)at^2$ $v_i = 0$ $t = ?$ $a = 6$ $d = 270$

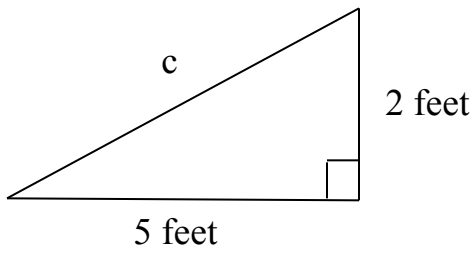10) $d = v_i t + (1/2)at^2$ $v_i = 10$ $t = 10$ $a = ?$ $d = 150$

11) $m_1v_{1i} + m_2v_{2i} = m_1v_{1f} + m_2v_{2f}$ $m_1 = 5$ $v_{1i} = 8$ $m_2 = 3$ $v_{2i} = 4$ $v_{1f} = 2$ $v_{2f} = ?$

12) $mgh = (1/2)mv^2$ $v = 3$ $m = 5$ $g = 10$ $h = ?$

13) $mgh = (1/2)mv^2$ $v = ?$ $m = 4$ $g = 15$ $h = 80$

14) $v_f = v_i + at$ $d = v_it + (1/2)at^2$ $v_f = 10$ $a = 2$ $t = 3$ $d = ?$

A little trigonometry

c

2 feet   Use this picture for the next three questions.

5 feet

1) In the picture above, what is the length of side c of the triangle?

2) How many degrees is the angle opposite side c?

3) How many degrees is the angle opposite the side with a length of 2 feet?