

Name \_\_\_\_\_  
Date \_\_\_\_\_  
Per \_\_\_\_\_  
Dangelmaier

Directions: Manipulate the following equations to solve for the unknown variable. Identify the unknown variable. Rearrange formula to solve unknown variable. Plug in givens to solve for unknown variable. Circle or square your final answer. Make sure to SHOW ALL WORK to receive full credit.

1.  $v = d/t$   $d = 10$   $t = 2$

2.  $v = d/t$   $v = 27$   $t = 10$

3.  $v_f = v_i + at$   $v_i = 35$   $v_f = 0$   $a = 2$

4.  $v_f = v_i + at$   $t = 4$   $v_i = 5$   $v_f = 42$

5.  $v_f^2 = v_i^2 + 2ax$   $v_i = 6$   $v_f = 74$   $x = 62$

6.  $x = 1/2 (v_f + v_i)t$   $t = 4$   $v_i = 10$   $x = 16$

7.  $F = kq_1q_2/r^2$     $F = 100$     $q_2 = 8$     $r = 6$     $k = 4$

8.  $KE = 1/2mv^2$     $m = 55$     $v = 3$