Physics 112
Thursday, October 15/15
http://mvhs-sherrard.weebly.com/

1. Explain That Stuff #4 - October 16/15
2. Check -> Worksheet - Motion Problems
3. Demo - Object Toss
4. Freely Falling Bodies - To Be Continued
5. Worksheet - Freely Falling Bodies

#12. 1D, 26m

$\vec{v}_i = +22\ m/s$
$\vec{a} = +14\ m/s^2$
$t = ?$
$\vec{d} = +26m$

$\vec{d} = \vec{v}_i t + \frac{1}{2}\vec{a}t^2$

$26 = 22t + \frac{1}{2}(14)t^2$

$26 = 22t + 7t^2$

$7t^2 + 22t - 26 = 0$

$at^2 + bt + c = 0$

$a = 7$, $b = 22$, $c = -26$

$t = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$t = \frac{-(22) \pm \sqrt{22^2 - 4(7)(-26)}}{2(7)}$

$t = \frac{-22 \pm \sqrt{1212}}{14}$

$t = \frac{-22 \pm 34.8}{14}$

$t = \frac{-22 + 34.8}{14}$

$t = 0.91\ s$

$t = \frac{-22 - 34.8}{14}$

#12. $\vec{v}_i = 22\ m/s$, $\vec{a} = 14\ m/s^2$, $\vec{d} = 26m$, $t = ?$

$\vec{v}_f^2 = \vec{v}_i^2 + 2\vec{a}\vec{d}$

$\vec{v}_f = 35.5\ m/s$

$t = \frac{\vec{v}_f - \vec{v}_i}{\vec{a}}$

$t =$

#15. $\vec{d} = -5.67m$, $\vec{v}_i = 0\ m/s$, $t = 2.89\ s$, $\vec{a} = ?$

$\vec{d} = \vec{v}_i t + \frac{1}{2}\vec{a}t^2$

#17. $\vec{v}_i = 0\ m/s$, $\vec{d} = +0.445m$, $\vec{v}_f = 1.40 \times 10^7\ km/h$

$1.80 \times 10^3 \div 3.6 = 500\ m/s$

$\vec{v}_f^2 = \vec{v}_i^2 + 2\vec{a}\vec{d}$

$\vec{a} = ?$

#18. $\vec{v}_i = 1.9 \times 10^6\ m/s$ [1900000 m/s]

$\vec{v}_f = 2.5 \times 10^7\ m/s$

$\vec{a} = 2.08 \times 10^{15}\ m/s^2$

$\vec{d} = ?$

$\vec{v}_f^2 = \vec{v}_i^2 + 2\vec{a}\vec{d}$

$\frac{\vec{v}_f^2 - \vec{v}_i^2}{2\vec{a}} = \frac{2\vec{a}\vec{d}}{2\vec{a}}$

$\frac{\vec{v}_f^2 - \vec{v}_i^2}{(2\vec{a})}$

Physics 122

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1. Explain That Stuff #4 - October 16/15

2. Lab - Experiment 10.2 - Torques - To Be Continued
   - Due: Today, October 15/15

3. Check -> Worksheet - Static Torque #1

4. Static Torque Problems with Forces Acting at Angles

5. Workheet - Static Torque #2

Science 10

http://mvhs.nbed.nb.ca/

Thursday, October 15/15

1. Assignment - Balance Reactions -> Today, October 15/15

2. Check -> 2nd Example (DR)
   Worksheet: Single and Double Replacement Reactions

3. Combustion Reactions

4. Worksheet - Combustion Reactions - HW

5. Video - Fireworks