

Simplest Formulas (Energies on left represent negative charges. On right they represent positive charges)

1. $mgh_0 - Fd = 0$

2. $mgh_0 + \frac{1}{2}mv_0^2 = \frac{1}{2}kx^2$

3. $\frac{1}{2}mv_0^2 = \frac{1}{2}kx^2 + mgh$

4. $\frac{1}{2}kx^2 = \frac{1}{2}mv^2$

5. $Fd = mgh$

6. $Fd = \frac{1}{2}kx^2 + mgh + \frac{1}{2}mv^2$

7. $\frac{1}{2}mv_0^2 = mgh$

8. $mgh_0 + \frac{1}{2}mv^2 - Fd = 0$

9. $Fd = \frac{1}{2}kx^2$

10. $\frac{1}{2}mv_0^2 - Fd = mgh$

11. $\frac{1}{2}kx^2 - Fd = mgh + \frac{1}{2}mv^2$

12. $mgh_0 + Fd = \frac{1}{2}mv^2$