Solving for Acceleration Variables

Physical Science and Technology

Rearrange each of the following equations so that the unknown variable is isolated on the left-hand side. You do NOT need to do the math to actually solve the equation! Use a separate sheet of paper and show all your work.

1. $a = \frac{(3\frac{m}{s} - 2.2\frac{m}{s})}{5\ s}$

2. $16\frac{m}{s^2} = \frac{\left(10\frac{m}{s} - v_i\right)}{8\ s}$

3. $22.4\frac{m}{s^2} = \frac{\left(v_f - 6.8\frac{m}{s}\right)}{2.2\ s}$

4. $212.1\frac{m}{s^2} = \frac{(113.1\frac{m}{s} - 54.2\frac{m}{s})}{t}$

5. $1024.23\frac{m}{s^2} = \frac{(81.5\frac{m}{s} - 21.66\frac{m}{s})}{t}$

6. $2.44\frac{m}{s^2} = \frac{\left(v_f - 1.8\frac{m}{s}\right)}{.404\ s}$

7. $144.3\frac{m}{s^2} = \frac{\left(172.3\frac{m}{s} - v_i\right)}{4.7\ s}$

8. $a = \frac{(21.3\frac{m}{s} - 28.7\frac{m}{s})}{7.9\ s}$