

Manipulating Formulas

Name _____

Take the given formula and solve for the variables requested.
If you are having difficulties with this assignment, here are some Internet links to help:
<http://www.studyphysics.ca/20/unit1/quick/manipulate/note.htm>
<http://www.brynmawr.edu/nsf/tutorial/ss/ssalg.html>
For additional Net help, do a google search on **manipulating equations**.

Problem 1:

$$d = st$$

This equation calculates the distance traveled (d) by multiplying the average speed (s) and the time (t).

- A) Solve this equation for speed:
B) Solve this equation for time :

Problem 2:

$$a = \Delta v / t$$

This equation calculates the acceleration of an object. The symbol Δ means change or difference in, so that acceleration is equal to the change in the velocity of an object divided by the time it took for the change to take place. Make sure to keep the Δ symbol with the v.

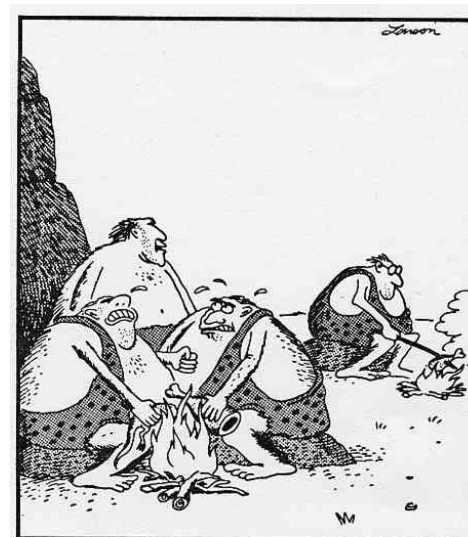
- A) Solve this equation for the change in velocity Δv :
B) Solve this equation for time (t) :

Problem 3:

$$s = \frac{1}{2}at^2$$

This equation calculates the speed of a constantly accelerating object (such as a falling object). The speed of an object (s) is equal to one-half the acceleration (a) multiplied by the time squared. When you are solving for time (t), make sure to take the square root of both sides of the equation!

- A) Solve for acceleration (a) :
B) Solve for time (t) :



"Hey! Look what Zog do!"