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Assigned: Thurs., 1/4 and Fri., 1/5
Due: Mon., 1/8 and Tues. , 1/9

1. Using your "How to Solve Word Problems" page solve this problem: A 15 kg object is going $2 \mathrm{~m} / \mathrm{s}$. How much momentum does the object have?
(You must show work for full credit: follow the steps shown.)
2. Give the units for the following quantities:
$\qquad$ Acceleration $\qquad$ Momentum $\qquad$ Distance
$\qquad$ Mass $\qquad$ Energy $\qquad$ Work
$\qquad$ Time
3. Fill in the math functions (which functions are shown).

$$
\begin{array}{cl}
\mathrm{S}_{2}-\mathrm{S}_{1}=\mathrm{S}_{2} \ldots \mathrm{~S}_{1} & \mathrm{Tv}=\mathrm{T} \\
\mathrm{~F} / \mathrm{a}=\mathrm{F} & \mathrm{mv}=\mathrm{m} \\
\mathrm{a} & \mathrm{v}
\end{array}
$$

4. Given $\mathrm{D}=\mathrm{Tv}$; to move v you would have to use:
5. Given $\mathrm{S}=\Delta \mathrm{D} / \Delta \mathrm{T}$, to move $\Delta \mathrm{T}$ you would have to use:
6. Given $\Delta \mathrm{S}=\mathrm{S}_{2}-\mathrm{S}_{1}$, to move $\mathrm{S}_{1}$ you would have to use:
7. Given $\mathrm{W}=\mathrm{Fd}$, solve for force:

## Remember to get a calculator!!!!

8. A car travels 120 meters in 3 seconds.

Find the speed of the car. (Show all 4 steps for credit)
9. What does " $\Delta$ " mean?
10. Car starts from rest and ends up 45 meter away. Find $\Delta \mathrm{D}$ for the car.
11. Car A and Car B travel 500 m , but Car B has a faster speed.
A. $\qquad$ Which car took more time to complete the trip?
B. _ Which car traveled farther?
12. What is the speed of an object 10 m from you for 2 seconds?
13. The following show the positions of three objects. Assume each dot is 1 second apart. (The first dot is at 0 seconds.)
a.

b.

c.

A. _ Which represents constant speed?
B. ___ Which is faster: a or c ?
C. _- How long does it take for it to go 15 m ?
D. Find the speed of object C.

