***Guided Practice -- Coding and Rearranging word problems***

***Please check your answers online at shakerscience.weebly.com***

1. Rearranging expressions -- rearrange the following formulas for the indicated variable.
2. *p= m v* for *v*
3. $a=\frac{v\_{f}-v\_{i}}{t}$ for vi
4. d = ½ a t2 for t
5. 2ad = vf2 - vi2 for vi
6. F = ma for a

2. Give the units for the following variables.

1. Velocity
2. Speed
3. Distance
4. Time
5. Acceleration
6. Momentum
7. Force
8. Mass
9. Impulse

3. In the following word problems, identify the given information by underlining, and then select from the formulas from 1 a-d that best fits the problems. Us 2 a-i to help you identify givens.

1. A truck is moving at a velocity of 24 m/s for 200 s. How far does the truck move?
2. The truck is moving at a velocity of 24 m/s and has a mass of 1200 kg. The truck hits a wall head on. What amount of momentum would the truck transfer to a wall?
3. A bird is flying a 6m/s for 60 seconds before coming to a complete stop. What is the deceleration of the bird?
4. The same bird has a mass of 0.10 kg. What was the force required to stop the bird?
5. A force of 1000N is applied to a 2000 kg mass. How fast does it accelerate?

4. NOW -- *rearrange* the formulas FIRST, then plug in the numbers to solve the problem.

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