Kinematic Equations Example Problems

1. A minivan starts at rest and then accelerates at a rate of 3 m/s^2 for 10 seconds. How far does the minivan travel in this time?

2. In coming to a stop, a car leaves skid marks 20 meters long on the highway. Assuming a deceleration of 4.0 m/s^2, estimate the speed of the car just before braking.

3. You are traveling at 24 m/s on the onramp. As you get ready to merge onto the interstate, you accelerate over a distance of 50 meters to 46 m/s. What was your acceleration?

4. Derive *Old Faithful*:

5. Derive *The Big Chalupa*:

6. Derive *Ain't Got No Time*: