

# Another Great Review

## Chpt. 3 rev S

Vel. of light = $3.00 \times 10^8$ m/s Vel. of sound = 340. m/s
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*Following the basic problem solving approach to solve the following problems: List all data including vector diagrams, list type motion, choose appropriate formula and list it, insert values into formula, and solve problem. All steps must be included to get full credit. Remember, acceleration due to gravity is  $-9.81 \text{ m/s}^2$*

1. How long does it take the light to travel the  $2.50 \times 10^4$  miles. (1 mile = 1.61 km) b) 25,000 miles is the circumference of the earth, what is its radius? ... list in miles and meters...
2. The bullet from a gun travels at 315 m/s (after it leaves the barrel). How far does it go in 0.520 seconds?
3. A bullet goes from rest to 355 m/s in  $3.84 \times 10^{-3}$ s. What is the acceleration of the bullet in the gun? How long is the barrel?
4. You throw a rock from a cliff at -12.1 m/s and it hits the ground after 5.5 seconds. How fast is it going when it hits?...How far did it fall?