**Review:**

1. Write out the Inverse Square Law and define each of the variables.
2. Write out the formula to find “New Intensity”.
3. Write out the formula to find the “New Distance”

**Part 1:**

1. We have 209 mr/hr @ 17”, what is our intensity at 6 feet?
   1. Does the difference in units matter? Y or N?
   2. How do we resolve the difference in units?
   3. Solve for our new intensity.
2. We have 4.301 R/hr @ 3M, what is our intensity at 15 feet?
   1. Units?
   2. What’s the intensity in R/hr?
   3. What’s the intensity in mr/hr?
   4. Show your work
3. We have 4.301 R/hr @ 3M, what is our intensity at 37 feet?
   1. Units?
   2. What’s the intensity in R/hr?
   3. What’s the intensity in mr/hr?
   4. Show your work
4. We have 65 R/hr @ 1 ft., what is our intensity at 25 feet?
   1. Units?
   2. What’s the intensity in R/hr?
   3. What’s the intensity in mr/hr?
   4. Show your work
5. We have 97 R/hr @ 1 ft., what is our intensity at 25 feet?
   1. Units?
   2. What’s the intensity in R/hr?
   3. What’s the intensity in mr/hr?
   4. Show your work

**Part 2: Solving for D2****New Distance**

1. Write out the formula solving for **D2**
2. We have 199 mr/hr @72”, and our desired I2 is the **safe to public radiation dosage**.
   1. What is the safe for public Radiation Dose**?**
   2. How far do we need to be? Solve for **(D2)** in Feet.
3. We know that 1 ci of iridium 192 emits 5.2 R/hr @ 1ft. so a 2 ci source of IR 192 would emit how many R/hr @ 1ft?
4. We now have a 100 ci source of IR 192.
   1. How many R/hr @1 ft?
   2. What is the “Caution: Radiation Area” working dosage?
   3. Solve for D2 and assume I2 is the Caution dosage of:
5. Cobalt 60 emits 14 R/hr/ci @ 1ft.
   1. How many R/hr is emitted at 1 ft. with a 100 ci source of Co 60?
   2. Solve for D2 and assume I2 is the public safe dosage of 2 mr/hr.
6. Cobalt 60 emits 14 R/hr/ci @ 1ft.
   1. How many R/hr is emitted at 1 ft. with a 100 ci source of Co 60?
   2. Solve for D2 and assume I2 is the “caution Radiation Work Area” dosage of 5mr/hr
7. We now have a 100 ci source of IR 192.
   1. How many R/hr @1 ft?
   2. Solve for D2 and assume I2 is the “caution Radiation Work Area” dosage of 5mr/hr.