Santa Fe Basin Sizing

1. Collection Surface Area _____ft^2
   (Water Budget Calculation Worksheet question #1)

2. Annual Total Harvested Rain from Collection Surface _____gal/yr
   (Water Budget Calculation Worksheet question #2)

3. Runoff Coefficient for Collection Surface R_c = _____

4. Total Rain from Collection Area in 100-yr Storm Event

$$100yr\ Rain\ (ft^3) = Area\ (ft^2) x Rain(in) x \left(\frac{1\ ft}{12\ in}\right) x R_C$$

$$100yr\ Rain\ (ft^3) = \_\_\_\_\_ (ft^2) x 2.0(in) x \left(\frac{1\ ft}{12\ in}\right) x \_\_\_\_\_$$

$$100yr\ Rain\ (ft^3) = \_\_\_\_\_$$

5. Volume of Basin = 100yr Rain = _____ft^3

6. Depth of Basin = _____(in) x ($\frac{ft}{12\ in}$)= _____ft

7. Width (or Length as Limiting Factor) = _____ ft

8. Length (or Width) ft = $\left(\frac{Volume\ Basin\ from\ \#5\ (ft)^3}{Depth\ from\ \#6\ (ft)\ x\ Width\ from\ \#7 (ft)}\right)$

$$\text{Length (or Width) ft} = \left(\frac{(ft)^3}{(ft)\ x \quad (ft)}\right) = \_\_\_\_\_ \text{ ft}$$

9. Dimensions of Basin Trial #1

   Length = _____ ft Width _____ ft Depth _____ ft

10. Do you have room for one giant basin, or are you going to split it into several basins?

11.Show your work and sketch out basins.