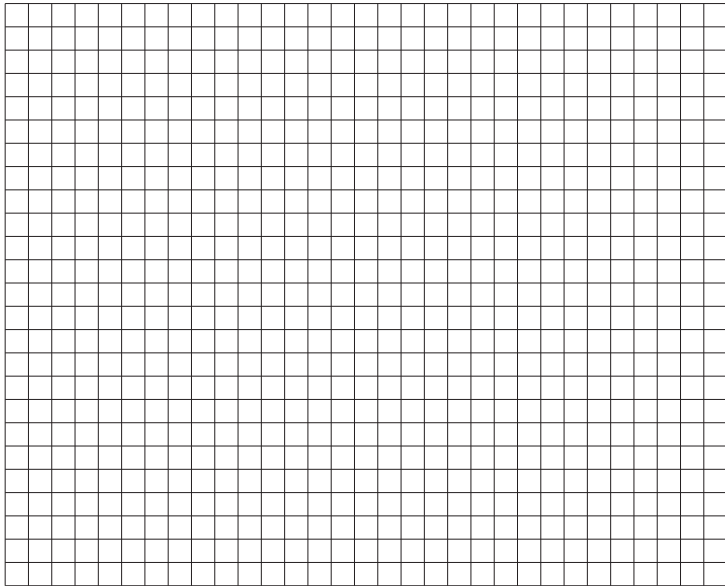


Cistern Sizing Model Water Harvesting Worksheet

user worksheet



Basic Area Formulas

Rectangle = Base × Height

Circle = $3 \times \text{radius} \times \text{radius}$
(approx)

Triangle = $\frac{1}{2} (\text{Base} \times \text{Height})$

INSTRUCTIONS

- On the grid draw the aerial view of your home. This would include any roof area such as overhangs or porches.
- Divide the roof into drainage areas by identifying downspouts and looking to see what portions of the roofed area flow to that down spout. This creates catchment zones.
- Divide your landscape into corresponding sections with the downspouts. This will help you budget water zone by zone in your yard. Each downspout will be responsible for its corresponding landscape.
- Calculate the area for each of the catchment zones. A complex shape can be sectioned into smaller simple shapes for calculation purposes.
- Record each catchment zone value in square feet in the sections provided below.
- Record each of the landscape catchment zones (including landscape description: turf, desert landscape, fruit trees, moderate water use trees. For trees count the number of trees and estimate the average canopy area) in square feet in the section provided below.
- Input these numbers into the Cistern Sizing Model to aid in determining the recommended and optimized cistern sizes.

Roof Catchments

Landscape Catchments/
landscape Description

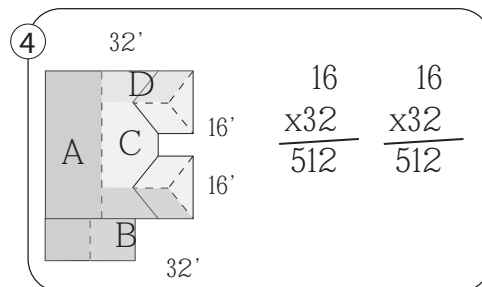
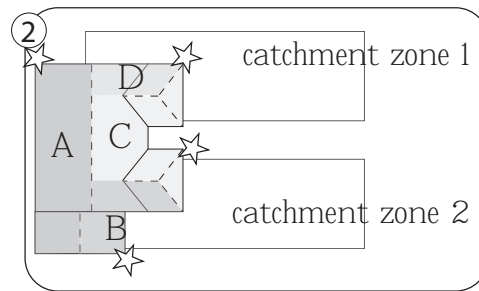
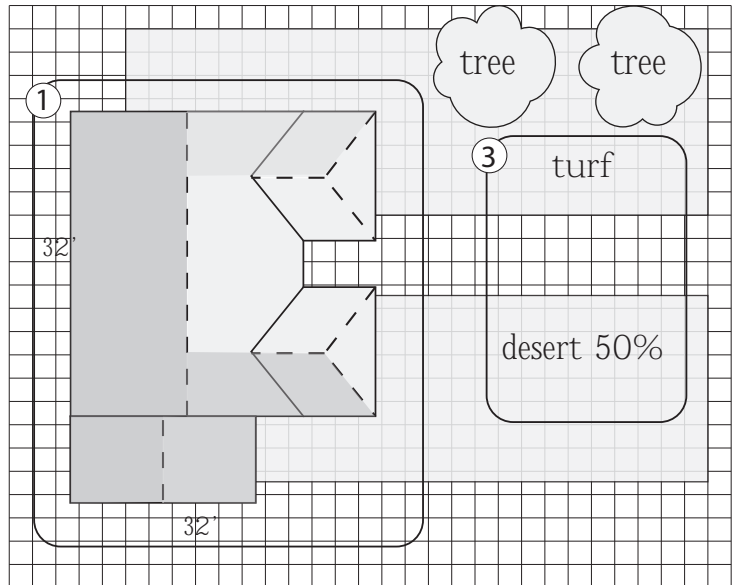
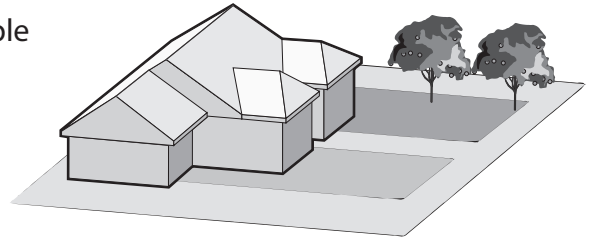
_____	_____
_____	_____
_____	_____
_____	_____

Continue on additional paper if needed.

ADDITIONAL NOTES

This model uses the assumption that you are retaining the rainwater that naturally falls on your landscape. In some cases this may mean modifying your existing landscape with berms and basins to utilize passive rainwater harvesting to detain water onsite. Passive rainwater harvesting consists of using earthworks to slow and detain water flow on your landscape. This is usually the least expensive form of water harvesting and a good place to start your water harvesting project.

example



5 Roof Catchments

A 512ft²

B 512ft²

6 Landscape Catchments/
landscape Description

turf: 380ft²

2 trees: 120ft²

desert 50% density:

380ft²