Water Allocation

Pie Chart

Water resource managers allocate and distribute water to all of the people who want it. When demand for water is greater than the supply, they must make some tough decisions.

If you were a water manager, how would you divide water among the stakeholders who need it?

Note: Large quantities of water are measured in acre-feet. One acre-foot is equivalent to almost 325, 852 gallons. It would cover ¾ of a soccer field with water at the depth of one foot.

Directions:

1. Read through the description of each stakeholder group.

2. Decide how to split 4,000,000 acre-feet of water among the people who need it.

Water Allocation

Stakeholder Group	Amount Allocated (acre-feet)
Total	**4,000,000**

3. Create a pie chart that represents your allocation:

A. For each stakeholder, calculate the percentage of total water you allocated (in decimal form) by dividing the allocation by the total amount of water (4,000,000 acre-feet).

B. Calculate the number of degrees of a circle (section of pie chart) to represent each allocation by multiplying the percentage from step A (in decimal form) by 360. Round to the nearest degree.

| Stakeholder Group	Amount Allocated (acre-feet)	% (X/4,000,000)	Degrees (% * 360)
(example) Households	750,000	.1875	67

C. Using a protractor, draw the section for each allocation on the circle below. **Color and label each section!**
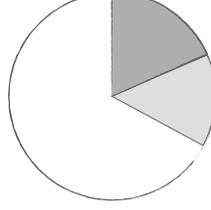
How to Draw a Pie Chart

STEP ONE:
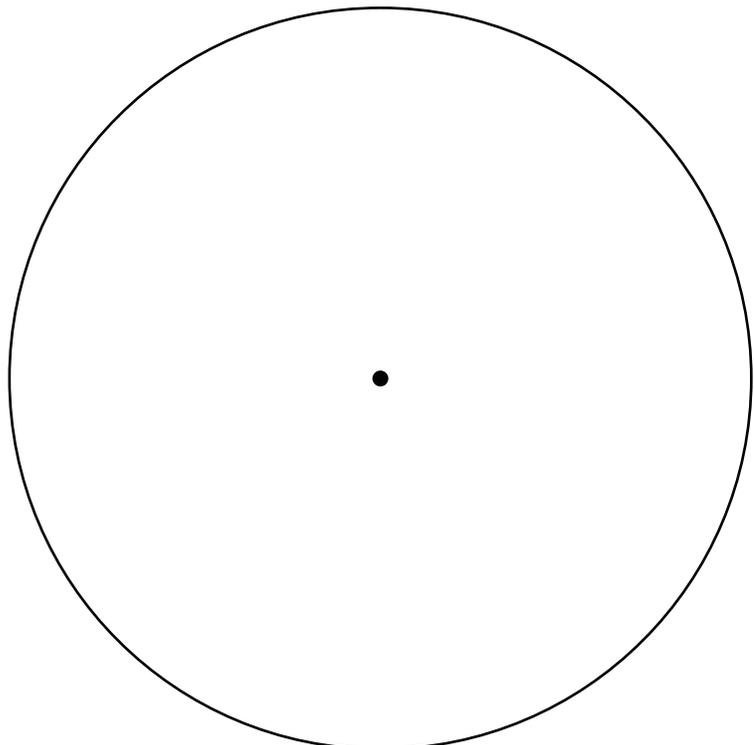Align protractor straight up and measure degrees starting from zero.
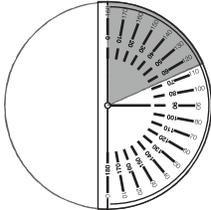
STEP TWO:
Rotate protractor so zero aligns with the line you just drew and measure next section.
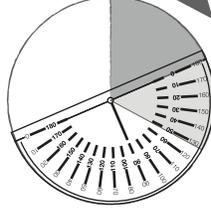
STEP THREE:
Continue drawing sections, rotating the protractor each time.

Sample Protractors:

Water Allocation - Pie Chart