

Water Budget

A budget is a record of income and outgo. In a water budget, precipitation such as rain or snow is the income. Evaporation is the outgo.

For this activity, you will need graph paper and two different colored pencils. On the graph paper, draw two axes. The vertical axis represents the precipitation. The horizontal axis represents the months.

Using the information in the chart and a colored pencil, plot a line graph of the monthly precipitation for city A. Using a different colored pencil, plot a line showing the evaporation on the same axes.

Now shade in the area where the precipitation is greater than the evaporation with one of the colored pencils. Label this area "Excess." Shade in the area where the evaporation is greater than the precipitation with the colored pencil. Label this area "Shortage."

Using the chart, find the excess or shortage for each month. To do this, subtract the evaporation from the precipitation. Record these results in the row labeled "Precipitation-Evaporation." A positive value indicates an excess, while a negative value is a shortage. Add the numbers across the "Precipitation" and "Evaporation" rows and enter the yearly totals. To find the yearly excess or shortage, subtract the total evaporation from the total precipitation.

Monthly Precipitation and Evaporation (in mm) for City A													
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Precipitation	15	20	30	60	80	110	95	80	70	55	40	20	
Evaporation	0	0	15	40	95	130	155	120	75	45	5	0	
Precipitation-Evaporation													

1. Which month shows the greatest amount of precipitation? _____
2. Which month shows the greatest amount of evaporation? _____
3. a. Which months show an excess? _____
 b. A shortage? _____
4. a. How does an excess occur? _____

 © Pr A shortage? _____

5. How can you tell if there was an excess or a shortage at the end of the year?

