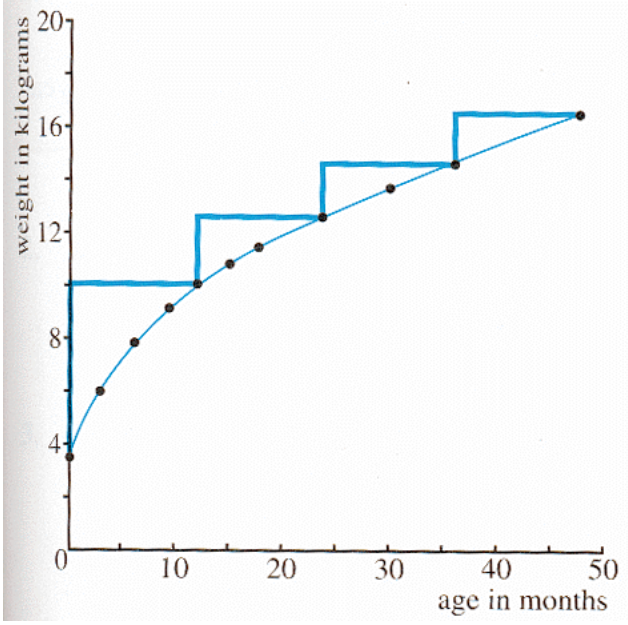


Weight as a Function of Age

This is a graph of weight as a function of age for Joshua. Four "steps" connect some data points.



Age	Weight (kg)
birth	3.4
3 mos.	5.7
6 mos.	7.6
9 mos.	9.1
12 mos.	10.1
15 mos.	10.8
18 mos.	11.4
2 yrs.	12.6
2.5 yrs.	13.6
3 yrs.	14.6
4 yrs.	16.5

1. Use the data table to find the weight (in kilograms), and the width (in months) of each step. Explain the meaning of these numbers in terms of the *yearly* change in Joshua's weight.

2. Find the average *monthly* weight gain between ages:
   a. two and two and a half
   b. two and a half and three
   c. two and three

3. Joshua's weight grew at a fairly constant monthly rate between ages one and four. Explain how this can be seen:
   a. on the graph.
   b. numerically.

4. However it grew much slower between ages one and four than during his first year. Explain how this can be seen:
   a. on the graph.
   b. numerically.