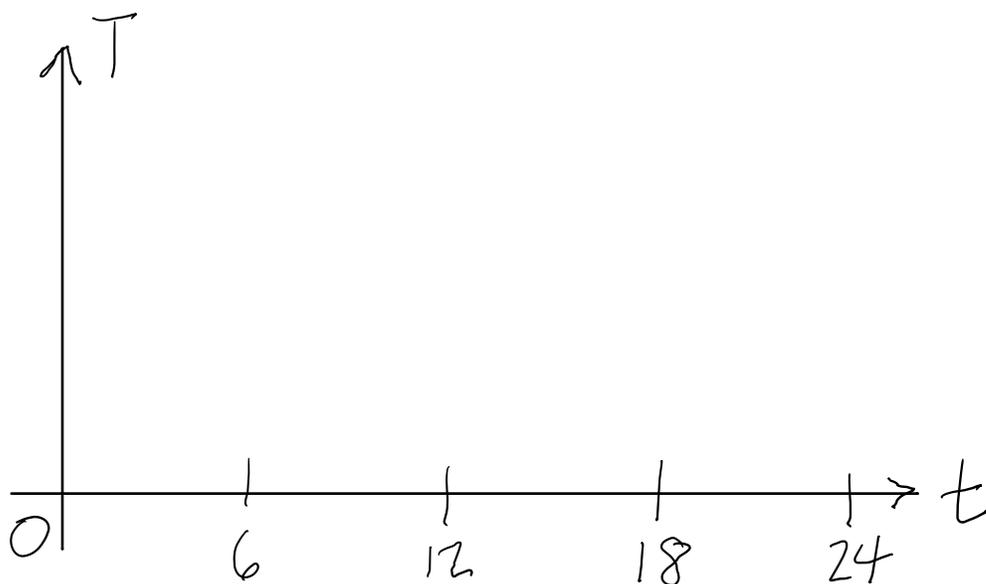**Average Value**

With a _____ of numbers, to find its _____ :

$y_{AVG} =$

where *n* represents _____

With _____ , need a new plan.

e.g.,

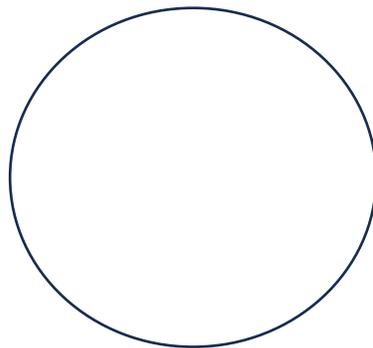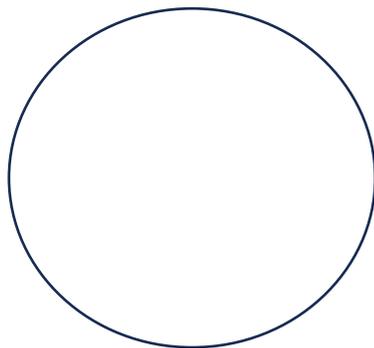ex. find average value of
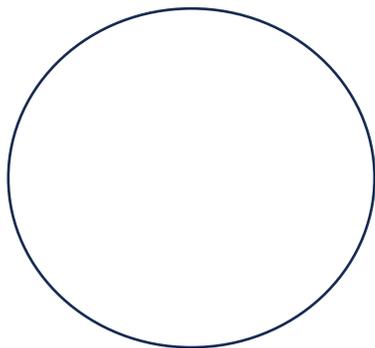
$$f_{AVG} \doteq \frac{1}{b-a} \int_a^b f(x)\, dx$$

Do: find average value of

ex. find average value of

Do: find average value of

Arc Length

ex. setup the length of the arc of

ex: set up length of curve for

ex.: find exact length of curve for

ex. find exact length of curve for