

**Lab sheet #8**

**Determination of plasma amylase**

**Objective:**

- To estimate the concentration of amylase in serum.

**Method:**

1. In a clean test tube add:

Chemical	Sample
Amylase substrate	1.0 ml
Pre-warm at 37°C for 5 minutes then add:	
Sample1	0.025 ml / 25µl

2. Mix and incubate at 37°C for 90 seconds and read the absorbance at 405 nm against distilled water.
3. Continue readings every 30 seconds for 2 minutes and determine ΔA/min.

2) Applications → 2) Simple Kinetics → wave-length (405 nm) → 1) Seconds  
 → Duration (120 sec = 2 min) → Intervals (30 sec) → Print Data Table (off)  
 → Press start (2 times)

→ The rate of **increase** in Ab is measured at 405nm and is proportional to the amylase activity in the sample.

**-Results:**

Time (Seconds)	Absorbance at 405 nm
0	
30	
60	
90	
120	

Calculations:

**Amylase Activity in TEST (U/L) = ΔA/min x 4824**

1-  $\Delta A/Min = (\Delta A1 + \Delta A2) / 2 :$

$\Delta A1 = (A60s - A30s) + (A30s - A0s) = \dots\dots\dots$

$\Delta A2 = (A120s - A90s) + (A90s - A60s) = \dots\dots\dots$

→  $\Delta A/Min = \dots\dots\dots$

2- **Amylase Activity in TEST (U/L) = .....**