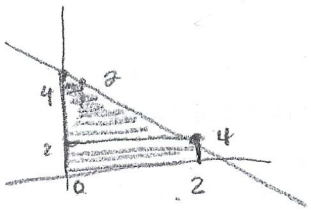
2) Give **the graph (remember to <u>shade</u> the corresponding area)** whose area is given by the following definite integral. Then use a **geometric formula** to **<u>evaluate the integral</u>** (by finding the area) **<u>(15 points each)</u>**

$\int_0^2 (4-x)\,dx$

**<u>Graph</u>**




$4+2=6$

**<u>Procedure by geometric formulas</u>**

$A = 6u^2$

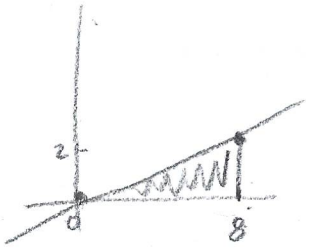
$\int_0^2 (4-x)\,dx = 6\ u^2$

$\frac{b \times h}{2} = 2$

$b \times h = 4$

3) $\int_0^8 \frac{x}{4}\,dx$

**<u>Graph</u>**



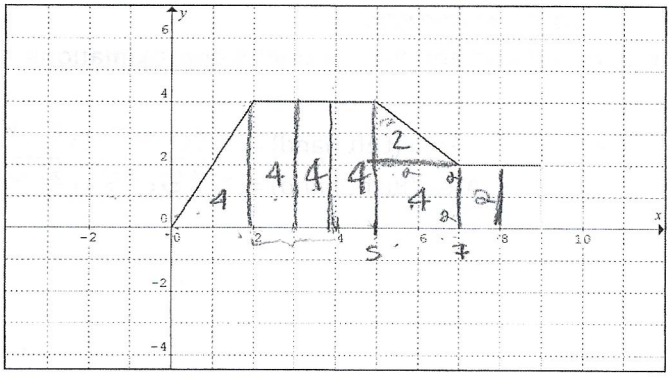

**<u>Procedure by geometric formulas</u>**

$A = \frac{8 \times 2}{2}$

$A = 8\ u^2$

$\int_0^8 \frac{x}{4}\,dx = 8u^2$

3) **Based on the following graph <u>evaluate</u> the given definite integrals (5 points each):**




1. $\int_0^3 f(x)\,dx$ $8\ u^2$

2. $\int_4^2 f(x)\,dx$ $-8\ u^2$ $-8u^2$ $-2$

3. $\int_5^7 f(x)\,dx$ $6\ u^2$

4. $\int_0^8 f(x)\,dx$ $24$