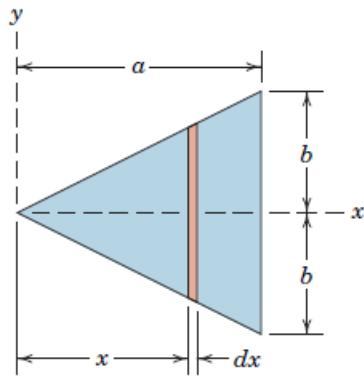


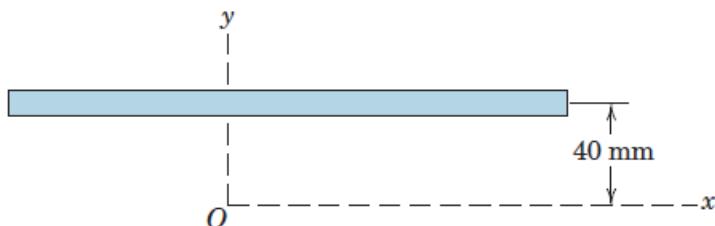
## Unit IV: Assessment: Assignments

### Session: 7

1. Use the differential element shown to determine the moment of inertia of the triangular area about the x-axis and about the y-axis.



2. If the moment of inertia of the thin strip of area about the x-axis is  $2.56 \times 10^6 \text{ mm}^4$ , determine the area A of the strip to within a close approximation.



3. The moments of inertia of the area A about the parallel p and p' -axes differ by  $15 \times 10^6 \text{ mm}^4$ . Compute the area A, which has its centroid at C.

