

Solved:-

a) Note that for two points  $i$  and  $j$  the Mcg  
the form

$$G_{ij} = m_i m_j (x_i - x_j)^2$$

Now, to not over count the particles, we  
 $i$  and then choose  $j$  to be greater than

Then, we get that the total Moeguffin we

$$G = \sum_{i=1}^N \sum_{j>i} G_{ij} = \sum_{i=1}^N \sum_{j=i+1}^N m_i m_j (x_i - x_j)^2$$

b) Now for the continuous case, let us take  
segment at distance  $u$  and  $v$  and take  
more than  $u$ , and let the length of  
be  $du$  and  $dv$ . Then the macguffin be  
these two segment would be:

$$dG = \mu(u) du \mu(v) dv (v-u)^2 = \mu(u) \mu(v) (v-u)^2$$

from this, we get that the total macguffin

$$G = \int dG = \int_a^b \int_u^b \mu(u) \mu(v) (v-u)^2 dv du$$

Meguffin is of the X? Solved: - a) Note that for two points  $i$  and  $j$  the form  $C_{ij} = m_i m_j$  (ne; -X;) Now, to not over count the particles,  $i$  and choose  $j$  Then, we get that the total energy  $G = \sum_{i=1}^N \sum_{j=1}^N m_i m_j$  (13-2)  $i=1, j>$  to he will choose be greater than  $i$ , then would be:  $i=1$  let us and  $U = \sum_{i=1}^N \sum_{j=1}^N m_i m_j$  Segment at more be these two segment b) Now for the continuous case take two distance and taking to be than  $u$ , and Let the length of the segment  $du$  and  $dv$ . Then the energy because of would be:  $U(u) = \int \int m(u) m(v) dv du$  from this, we get that the total energy would be: on  $= \int M(u) du$  dG C