How many grams of lithium hydroxide will be produced if o.38 grams of lithium nitride reacts according. to the following equation: li3n + 3h2o =3lioh + nh3.

Solution:

$m(LiOH) - ?$

$m(Li_3N) = 0.38\,g$

$Li_3N + 3H_2O = 3LiOH + NH_3$

$n(Li_3N) = \frac{0.38\,g}{34.83\,g/moles} = 0,0109\,moles$

then, $n(LiOH) = 3 \times 0,0109\,moles =$

$= 0,0327\,moles$

$m(LiOH) = 0.0327\,moles \times 23.95\,g/moles =$

$= 0,7832\,g \sim 0.78\,g.$

Answer: $m(LiOH) = 0.78\,g.$