#36821, Chemistry, Other

20 moles of nh3 are needed to produce how many moles of h2o.

Solution:

NH_3 reacts with oxygen to produce H_2O as follows:

$4NH_3(g)+ 7O_2(g) = 4NO_2(g)+6H_2O(g)$

According to equation 4 moles of NH_3 are needed to produce 6 moles of H_2O, so 20 moles of NH_3 produce $\frac{20 \cdot 6}{4} = 30$ moles of H_2O.

Answer: 30 moles of H_2O.