2 X(*aq*) + Y(*aq*) 🡪 5 M(*s*) + T2(*g*)

Given the following information:

# X = 10 g / mol

Y = 20 g / mol

# M = 6 g / mol

T = 5 g /mol

If I begin with 100 g of solution X and mix it with 1.8 x 1024 molecules of solution Y. How many moles of M will precipitate out of solution AND what volume of T2 gas will be produced at STP?