MARK IT

Science Mastery

1. Read the question and the student's answer carefully.

2. Use the mark scheme to award the student a number of marks and annotate their answer with suggestions to improve.

Stretch: Rewrite the answer to show how it should be done!

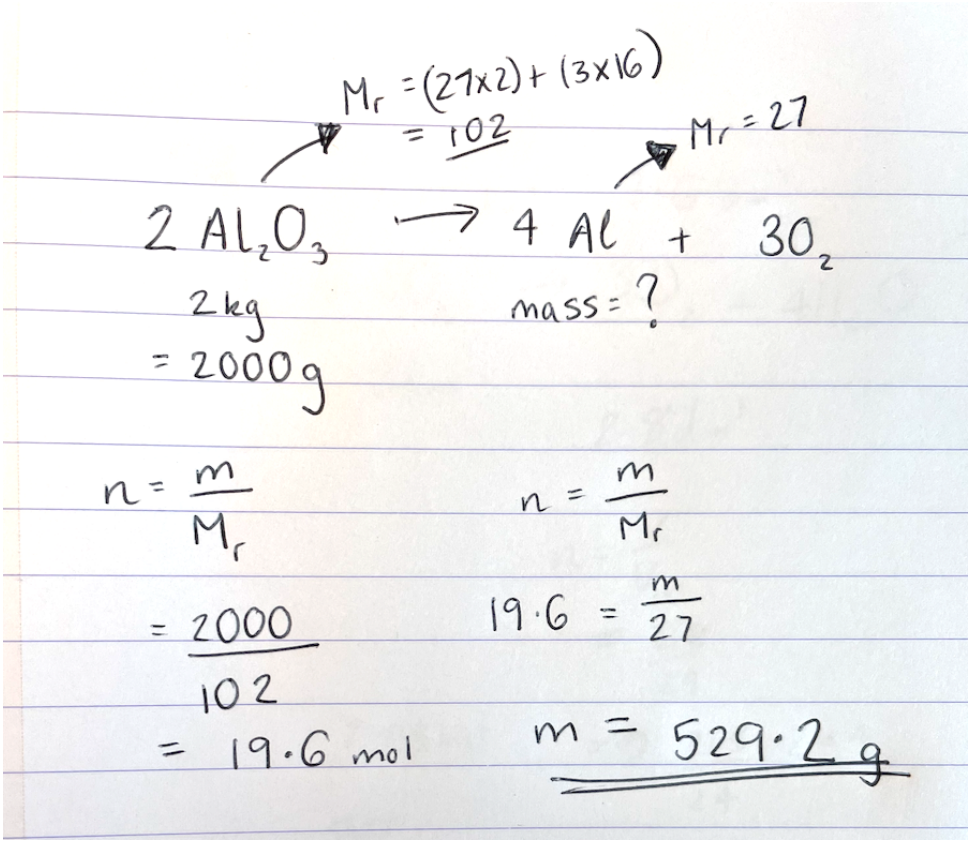
Question:

Aluminium can be separated from its ore by electrolysis. The equation for the reaction is:

$$2\ Al_2O_3\ (l) \rightarrow 4\ Al\ (s) + 3\ O_2\ (g)$$

Calculate the mass of aluminium that could be obtained from 2 kg of aluminium oxide. **(6)**

Student answer:



Marks awarded= _____

Mark scheme:

Point	Mark
Mr Al_2O_3 = 102	1 (answer, can also be shown in working of next point)
Number of moles Al_2O_3 = m/Mr 2000/102	1 (substitution)
Number of moles Al_2O_3 = 19.6.078…mol	1 (answer)
Mole ratio= 2:4 Number of moles Al = 39.2156…	1 (number of moles Al)
Mass Al = n x Mr = 39.2156 x 27	1 (substitution)
1 058.82 g	1 (answer)