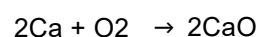




# REACTING MASS CALCULATIONS 3

- 1) Calculate the mass of calcium that can react with 40 g of oxygen.



.....

.....

.....

.....

.....

- 2) Calculate the mass of fluorine that reacts with 3.9 g of potassium.



.....

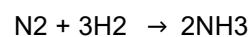
.....

.....

.....

.....

- 3) Calculate the mass of nitrogen that reacts with 30 g of hydrogen.



.....

.....

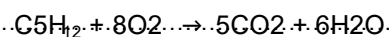
.....

.....

.....

What mass of carbon dioxide is made when 7.2 g of pentane (C<sub>5</sub>H<sub>12</sub>) burns in oxygen?

- 4) .....



.....

.....

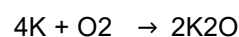
.....

.....

.....

What mass of potassium can react with 4.0 g of oxygen?

- 5)



.....

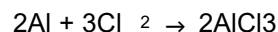
.....

.....

.....

.....

6) What mass of chlorine reacts with 8.1 g of aluminium?



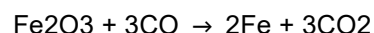
.....

.....

.....

.....

7) What mass of iron can be made from 20 kg of iron(III) oxide?



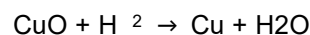
.....

.....

.....

.....

8) What mass of hydrogen is needed to react with 31.8 mg of copper(II) oxide?



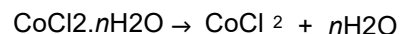
.....

.....

.....

.....

9) 5.95 g of hydrated cobalt(II) chloride decompose to form 3.25 g of anhydrous cobalt(II) chloride on heating. Calculate the formula mass of hydrated cobalt(II) chloride and the value of  $n$ .



.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

| Area                            | Strength | To develop | Area                                 | Strength | To develop | Area                              | Strength | To develop |
|---------------------------------|----------|------------|--------------------------------------|----------|------------|-----------------------------------|----------|------------|
| Done with care and thoroughness |          |            | Can find moles from mass             |          |            | Can convert units                 |          |            |
| Shows suitable working          |          |            | Can use reacting ratios in equations |          |            | Can find water of crystallisation |          |            |
| Can work out $M_r$              |          |            | Can find mass from moles             |          |            | Gives units                       |          |            |