**Mole to Mole Conversion**

Use the following balanced equation to answer the following 4 questions:

2Li3PO4 + 3BaI2 🡪 6LiI + Ba3(PO4)2

How many moles of Ba3(PO4)2 can be produced from 3 moles of BaI2?

How many moles of Li3PO4 are needed to produce exactly .087 moles of LiI?

How many moles of LiI can be produced from .39 moles of BaI2?

How many moles of BaI2 are needed to produce 19 moles of Ba3(PO4)2?

How many moles of Barium Chloride are produced when .02 moles of Aluminum Chloride react with an excess amount of Barium Nitride to form Barium Chloride and Aluminum Nitride?

How many moles of Water are needed to produce 8.43 moles of Hydrogen gas when water decomposes to form hydrogen gas and oxygen gas?

How many moles of Aluminum chloride can be produced from .056 moles of Copper(II) Chloride when Aluminum and Copper (II) Chloride react to form Aluminum Chloride and Copper?

How many moles of methane gas (CH4) are needed to produce 9.44 moles of carbon dioxide when methane combusts completely.