

Name : _____ Date : _____

Law of Conservation of Mass True or False Worksheet

1. Write whether the following statements are true or false using the law of conservation of mass.

- i) 50g of Na reacts with 71g of Cl_2 to produce 121g of NaCl. _____
- ii) 179g of water separates into 80g of H_2 and 80g of O_2 . _____
- iii) 35g of AlCl_3 is produced when 23g of Al reacts with 100g of Cl_2 . _____
- iv) When heat is added to a reaction, it destroys the mass of the reactants to create products. _____
- v) The reactants of a chemical reaction can never weigh more than the products. _____
- vi) If an astronaut weighs less on the moon, she has less mass on the moon than she would on Earth. _____
- vii) An open system is more likely to conserve mass than a closed system. _____
- viii) The number of atoms does not change before and after a chemical reaction. _____
- ix) When water is boiled in a closed system and turns into water vapor, it changes from liquid to gas. This is in accordance with the law of conservation of mass. _____
- x) As per the law of conservation of mass, the reactants and the products display the same chemical properties. _____
- xi) Albert Einstein was the one to propose the law of conservation of mass. _____
- xii) If a 500 lb tree burned to the ground and left behind 20 lbs of ash, the law of conservation of mass still applies. This is because the rest of the tree was converted into smoke and dispersed. _____
- xiii) When ice melts into water, it changes from solid to liquid. As the state of matter has changed, the law of conservation of mass no longer applies. _____

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Answers

1.

- i) 50g of Na reacts with 71g of Cl_2 to produce 121g of NaCl. True
- ii) 179g of water separates into 80g of H_2 and 80g of O_2 . False
- iii) 35g of AlCl_3 is produced when 23g of Al reacts with 100g of Cl_2 . False
- iv) When heat is added to a reaction, it destroys the mass of the reactants to create products. False
- v) The reactants of a chemical reaction can never weigh more than the products. True
- vi) If an astronaut weighs less on the moon, she has less mass on the moon than she would on Earth. False
- vii) An open system is more likely to conserve mass than a closed system. False
- viii) The number of atoms does not change before and after a chemical reaction. True
- ix) When water is boiled in a closed system and turns into water vapor, it changes from liquid to gas. This is in accordance with the law of conservation of mass. True
- x) As per the law of conservation of mass, the reactants and the products display the same chemical properties. False
- xi) Albert Einstein was the one to propose the law of conservation of mass. False
- xii) If a 500 lb tree burned to the ground and left behind 20 lbs of ash, the law of conservation of mass still applies. This is because the rest of the tree was converted into smoke and dispersed. True
- xiii) When ice melts into water, it changes from solid to liquid. As the state of matter has changed, the law of conservation of mass no longer applies. False