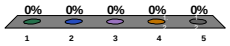
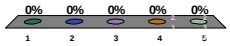
Soap attracts "grime" by which type of molecular interaction?

1. ion–polar molecule.
2. **ion–nonpolar molecule.**
3. hydrogen bonding.
4. **nonpolar molecule–nonpolar molecule.**
5. none of these choices.



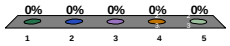
Which of the following is most commonly used for disinfecting wastewater in the United States?

1. Chlorine
2. Iodine
3. Ozone
4. Reverse osmosis
5. Ultraviolet light



Which of the following is not a method of disinfecting drinking water?

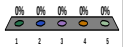
1. Aeration
2. Boiling
3. Chlorine gas
4. Distillation
5. Iodine tablets



Balance this equation:

____ H_2 (g) + ____ N_2 (g) → ____ NH_3 (g)

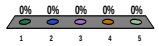
1. 2 H_2 (g) + 2 N_2 (g) → 3 NH_3 (g)
2. 2 H_2 (g) + 2 N_2 (g) → 5 NH_3 (g)
3. 3 H_2 (g) + 3N_2 (g) → 2 NH_3 (g)
4. 3 H_2 (g) + 1N_2 (g) → 2 NH_3 (g)
5. None of these is the correctly balanced equation



Balance this equation:

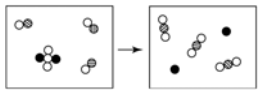
____ P_4 (s) + ____ H_2 (g) → ____ PH_3 (g)

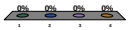
1. 4 P_4 (s) + 2 H_2 (g) → 3 PH_3 (g)
2. 1 P_4 (s) + 6 H_2 (g) → 4 PH_3 (g)
3. 1 P_4 (s) + 4 H_2 (g) → 4 PH_3 (g)
4. 2 P_4 (s) + 10 H_2 (g) → 8 PH_3 (g)
5. None of these is the correctly balanced equation



The diagram shows iron oxide, Fe_2O_3, and carbon monoxide, CO reacting to form iron and carbon dioxide. Which of the following is the correct full balanced chemical equation for the reaction depicted?

1. Fe_2O_3 + 3 CO → 2 Fe + 3 CO_2
2. Fe_2O_3 + 3 CO → 2 Fe + 3 C_2O
3. Fe_2O_3 + 3 CO → 2 FeO_2 + 3 C
4. Fe_2O_3 + 3 CO → 3 FeO + 3 C

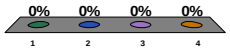




How many moles of oxygen, O_2, can be produced from two moles of $KClO_3$?

2 $KClO_3$ → 2 KCl + 3 O_2

1. 1 mole
2. 1.5 moles
3. 2 moles
4. 3 moles



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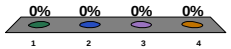

A friend argues that if mass were really conserved, he would never need to refill his gas tank. What explanation do you offer your friend?

1. The Law of Conservation of Mass does not apply to reactions involving combustion or explosion of matter.
2. The oil companies make gasoline in a way that it gets used up so that we are always required to replenish it.
3. The atoms (mass) of gasoline are converted into energy by the engine according to $E = mc^2$.
4. The atoms (mass) of gasoline are converted into exhaust fumes.