

- 1 A heat lamp warms water in a glass by ...
 - A conduction
 - B convection
 - C radiative heating
 - D all of the above
- 2 A "light wheel" works by ...
 - A photon momentum imparted to the black vane sides
 - B light absorption by the black vane sides
 - C light reflection by the shiny vane sides
 - D convection
- 3 When you warm your hands by 30C by rubbing them together, your hands are ...
 - A the system
 - B the surroundings
 - C both system and surroundings
 - D neither system nor surroundings
- 4 When you warm your hands by 30C by rubbing them together,
 - A $q = 0, w > 0$
 - B $q > 0, w = 0$
 - C $q > 0, w > 0$
 - D $q = 0, w = 0$
- 5 When you warm your hands by 30C by holding them near a flame, your hands are ...
 - A the system
 - B the surroundings
 - C the system and surroundings
 - D neither system nor surroundings
- 6 When you warm your hands by 30C by holding them near a flame,
 - A $q = 0, w > 0$
 - B $q > 0, w = 0$
 - C $q > 0, w > 0$
 - D $q = 0, w = 0$
- 7 When you warm your hands by 30C by holding them near a flame, compared to warming them the same amount by rubbing them together, the energy change is ...
 - A larger
 - B the same
 - C smaller
 - D more information needed

- 8 Aqueous solutions at the same temperature are combined, a reaction occurs, and the temperature of the combined solutions goes up. The water is ...
 - A the surroundings
 - B the system
 - C neither
- 9 Aqueous solutions at the same temperature are combined, a reaction occurs, and the temperature of the combined solutions goes up. The reactants are ...
 - A the system
 - B the surroundings
 - C neither system nor surroundings
- 10 Aqueous solutions at the same temperature are combined, a reaction occurs, and the temperature of the combined solutions goes up. The reactants and products are ...
 - A the system
 - B the surroundings
 - C neither system nor surroundings