Chlorine gas is bubbled for several minutes through a sample of pent-1-ene. Which of the following statements identifies the type of reaction that occurs and the colour of the solution in the flask after the reaction is complete, assuming the chlorine gas is the limiting reagent?

	Type of reaction	Solution colour after complete reaction
(a)	substitution	colourless
(b)	addition	colourless
(c)	addition	green
(d)	substitution	green