Ammonia,  $\mathrm{NH_3}$ , is an industrially-important chemical. It is produced on an industrial scale by the Haber process. The reaction for the Haber process is shown below.

$$N_2(g) + 3 H_2(g) \rightleftharpoons 2 NH_3(g) + 92 kJ mol^{-1}$$

22. What combination of temperature and pressure should be used to maximise the yield of ammonia, NH<sub>3</sub>?

	Temperature for maximum NH <sub>3</sub> yield	Pressure for maximum NH <sub>3</sub> yield
(a)	high temperature	low pressure
(b)	high temperature	high pressure
(c)	low temperature	low pressure
(d)	low temperature	high pressure