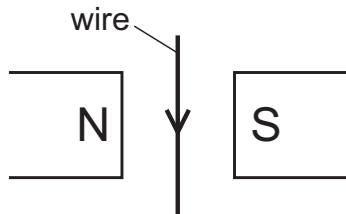


- 30** A conducting wire is placed between the poles of a magnet. When an electric current in the wire is in the direction shown, then the force on the wire acts out of the page.



Three statements of different conditions and how the wire is affected are given.

- 1 When the current is towards the top of the page and the direction of the magnetic field is unchanged, the force produced acts into the page.
- 2 When the current is towards the bottom of the page and the magnetic field is reversed, the force produced acts into the page.
- 3 When the current in the wire is alternating, the wire vibrates into and out of the page.

Which statements are correct?

- A** 1, 2 and 3 **B** 1 and 2 only **C** 1 and 3 only **D** 2 and 3 only