

## Polarization of ionic bonds

Name: \_\_\_\_\_

1. Explain the meaning of the following terms

Polarization.

Polarizability.

Polarizing power.

2. Fajan's rule relates the polarizability and polarizing power of an ion to the size and charge.

Delete where appropriate.

For anions the larger / smaller the ion the more easily polarized, and the greater / smaller the charge the more easily polarized.

For cations the larger / smaller the ion the greater the polarizing power, the greater / smaller the charge the greater the polarizing power.

3. Based on fajan's rule state and explain which of the following pairs of ionic compounds would be more ionic.

i) LiCl or NaCl

ii) K<sub>2</sub>O or K<sub>2</sub>S

iii) MgBr<sub>2</sub> or NaBr

iv) CaO or CaF<sub>2</sub>