2. The point A has position vector

$$\mathbf{a} = (4p + q)\mathbf{i} + (2p - 2q)\mathbf{j} + (q - 2p)\mathbf{k}$$

where p and q are constants.

Given that

- the **k** component of **a** is 14
- the **j** component of **a** is twice the **i** component of **a**

find the value of p and the value of q.

(4)