There are five different quadrominoes (ways to stick five squares together so that sides match.)

a

d


Can we create a set of four questions where no quadromino has the same answers as another?

The following questions will accomplish this successfully;

1. Does it have rotational symmetry?
2. Does it have reflection symmetry?
3. Is the perimeter equal to 8 ?

|  | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: |
| A | yes | no | no |
| B | yes | yes | no |
| C | no | no | no |
| D | no | yes | no |
| E | yes | yes | yes |

There are twelve possible pentominoes (see Sheet 3:1.)
Can we create a set of six questions
where no pentomino has the same answers as another? [20 marks]
Try this on Sheet 3:2.
You are allowed to use some of the questions above if you wish.
If you use less than six questions, you get bonus marks!

