## Midpoint Investigation

## One Quadrant

Using the activity Midpoint Investigation on your TI-Nspire handheld, grab and move the endpoints of the line segments on page 2.1 (or page 3.1). Note the coordinates of the endpoints and the coordinates of the midpoint in the table below.

| Repetition | Co-ordinates of |  |  |
| :---: | :---: | :---: | :---: |
|  | A | B | midpoint |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |

Can you spot a rule to calculate the coordinates of the midpoints given the coordinates of the endpoints?

In your own words, state the rule you think you have found.

## Four Quadrants

Using the activity Midpoint Investigation on your TI-Nspire handheld, grab and move the endpoints of the line segments on page 2.2 (or page 3.2). Note the coordinates of the endpoints and the coordinates of the midpoint in the table below.

| Repetition | Co-ordinates of |  |  |
| :---: | :---: | :---: | :---: |
|  | C | D | midpoint |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |

Is your previous rule for finding the coordinates of the midpoint still valid? Check, using your rule.

