Maths

# Independent Task To describe movements between positions as translations of a given unit left/right or up/down

Mr Critchlow



#### **To Start**

Can you complete the number grid by putting the numbers into the correct places? It's like a crossword but with numbers not letters.

| 5 |  |  |   |   |   |   |  |  |
|---|--|--|---|---|---|---|--|--|
| 6 |  |  | , |   |   |   |  |  |
| 2 |  |  |   |   |   |   |  |  |
| 9 |  |  |   |   |   |   |  |  |
| 7 |  |  |   |   |   |   |  |  |
| 1 |  |  |   |   |   |   |  |  |
|   |  |  | 9 | 7 | 0 | 2 |  |  |
|   |  |  |   |   |   |   |  |  |
|   |  |  |   |   |   |   |  |  |
|   |  |  |   |   |   |   |  |  |
|   |  |  |   |   |   |   |  |  |
|   |  |  |   |   |   |   |  |  |

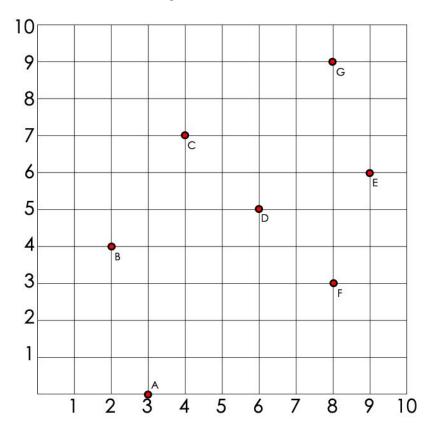
| 3 DIGITS | 4 DIGITS |                 |  |  |
|----------|----------|-----------------|--|--|
| 187      | 1098     | 6279            |  |  |
| 260      | 1947     | 7386            |  |  |
| 365      | 3265     | 7649            |  |  |
| 705      | 4671     | 8063            |  |  |
| 729      | 5069     | <del>9702</del> |  |  |
| 963      | 5934     | 9746            |  |  |
| 973      |          | 5               |  |  |

| 5 DI  | GITS  | 6 DIGITS          |
|-------|-------|-------------------|
| 18091 | 53784 | 159304            |
| 23765 | 67037 | <del>562971</del> |
| 25971 | 87197 |                   |
| 35876 | 94102 |                   |
| 39678 | 95471 |                   |
|       |       |                   |
|       |       |                   |
|       |       |                   |



#### To start

Can you work out the coordinates for each of the points on this grid?

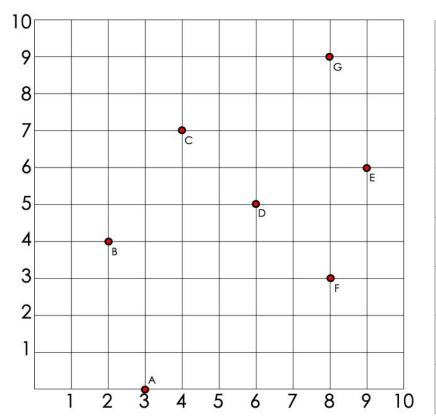


| Point | Coordinates |
|-------|-------------|
| А     |             |
| В     |             |
| С     |             |
| D     |             |
| E     |             |
| F     |             |
| G     |             |



## **Moving on**

Can you figure out how the points have been translated? The first has been done for you.

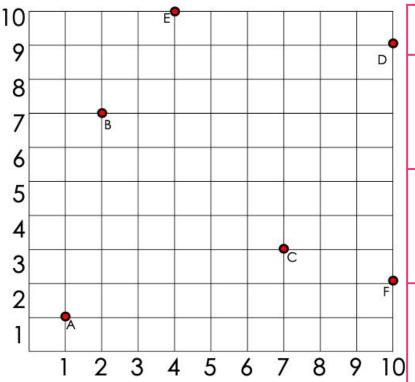


| Point  | Translation   |
|--------|---------------|
| A to B | 1 left , 4 up |
| B to C |               |
| C to D |               |
| D to E |               |
| E to F |               |
| F to G |               |
| G to A |               |



### Challenge

These are the final translations of some points. Can you work out where each point started?

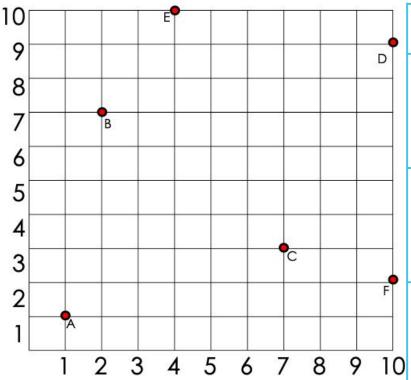


| Clue  | Start |
|---|-------|
| Point A moves 2 spaces left<br>and 2 down. What were the<br>original coordinates? |       |
| Point B moved 3 spaces left<br>and 2 up. What were the<br>original coordinates?   |       |
| Point C moved 1 space right and 3 up. What were the original coordinates?         |       |



### Challenge

These are the final translations of some points can you work out where each point started?



| Clue   | Start |
|--|-------|
| Point D moved 3 spaces right<br>and 0 up. What were the<br>original coordinates? |       |
| Point E moved 1 space right and 9 spaces up. What were the original coordinates? |       |
| Point F moved 8 right and 4 spaces down. What were the original coordinates?     |       |

