# Graph Paper Programming!

## Processing: Puzzle 1 Desk Check with teacher

START at the ⭐
loops = 0
loops = 3?
Yes → Colour in square → END
No → Colour in square → Move one square down → Move one square right → loops = loops + 1
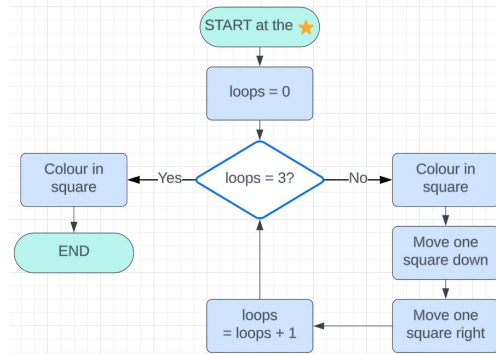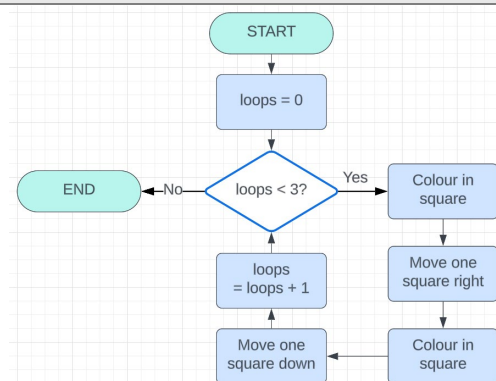
```
1   loops = 0
2   While NOT loops = 3
3       Colour in square
4       Move one square down
5       Move one square right
6       loops = loops + 1
7   EndWhile
8   Colour in square
```

Desk check:

loops:

## Puzzle 2

START
loops = 0
loops < 3?
No → END
Yes → Colour in square → Move one square right → Colour in square → Move one square down → loops = loops + 1
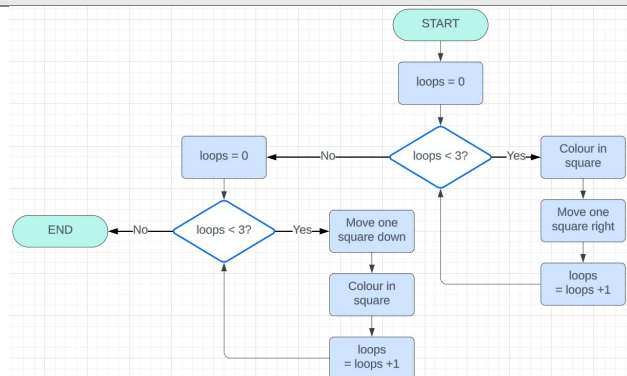
```
1   loops = 0
2   While loops < 3
3       Colour in square
4       Move one square right
5       Colour in square
6       Move one square down
7       loops = loops + 1
8   EndWhile
```

Desk check:

loops:

## Puzzle 3

START
loops = 0
loops < 3?
Yes → Colour in square → Move one square right → loops = loops +1
No → loops = 0 → loops < 3?
No → END
Yes → Move one square down → Colour in square → loops = loops +1
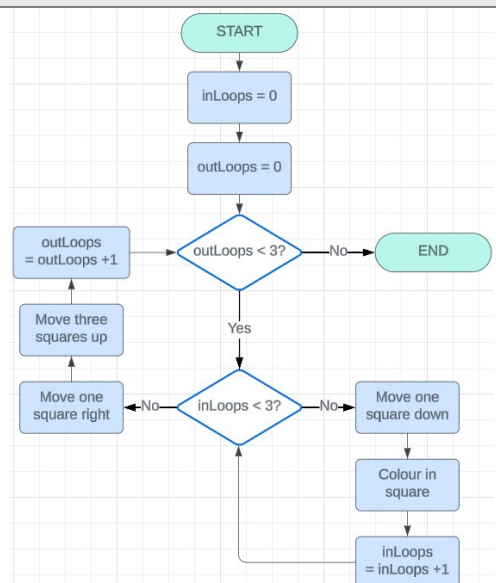
```
1    loops = 0
2    While loops < 3
3        Colour in square
4        Move one square right
5        loops = loops + 1
6    EndWhile
7    loops = 0
8    While loops < 3
9        Move one square down
10       Colour in square
11       loops = loops + 1
12   EndWhile
```

Desk check:

loops:

## Puzzle 4

START
inLoops = 0
outLoops = 0
outLoops < 3?
No → END
Yes → inLoops < 3?
No → Move one square down → Colour in square → inLoops = inLoops +1
No → Move one square right → Move three squares up → outLoops = outLoops +1

```
1    inLoops = 0
2    outLoops = 0
3    While outLoops < 3
4        While inLoops < 3
5            Move one square down
6            Colour in square
7            inloops = inloops + 1
8        EndWhile
9        Move one square right
10       Move three squares up
11       outLoops = outLoops + 1
12   EndWhile
```

Desk check:

inLoops:

outLoops:

Apply – Write the algorithm for each picture!

| Puzzle 5 | | |
|---|---|---|
|  | Your algorithm: | Desk check:<br> |

| Puzzle 6 | | |
|---|---|---|
|  | Your algorithm: | Desk check:<br> |

| Puzzle 7 | | |
|---|---|---|
|  | Your algorithm: | Desk check:<br> |