Continue these sequences to the tenth term.

1 

2  68 73 63

3  3 4 9 6

4  4 8 2 16

5  1 4 16 9

6  3 6 24
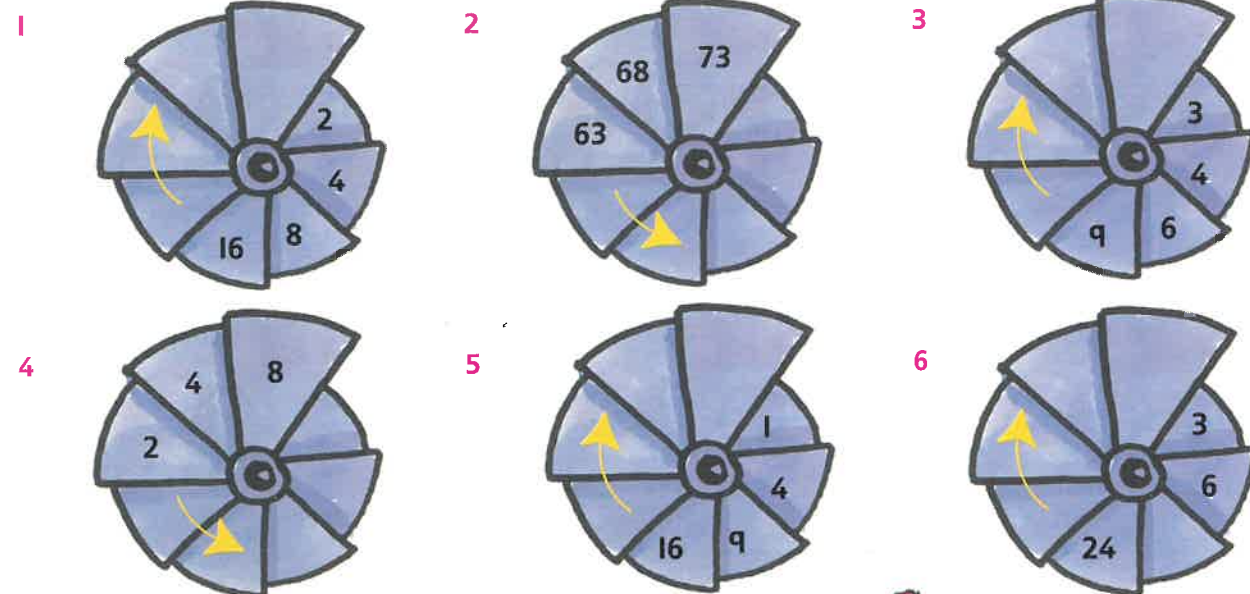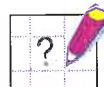
Write the first six terms of these sequences. Start at the numbers given and use the rules shown.

7. 2, 5, 8, 11, ...

7 2   add 3

8 1   double

9 74   subtract 5

10 64   divide by 2

11 1   treble

12 2   multiply by 10

13 1·2   subtract 0·1

14 $1\frac{1}{4}$   add $\frac{1}{4}$
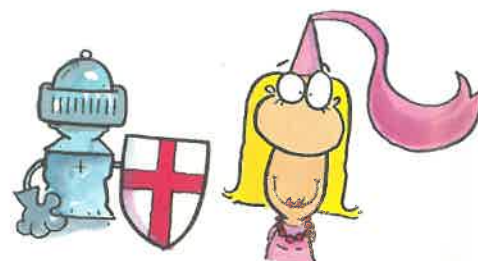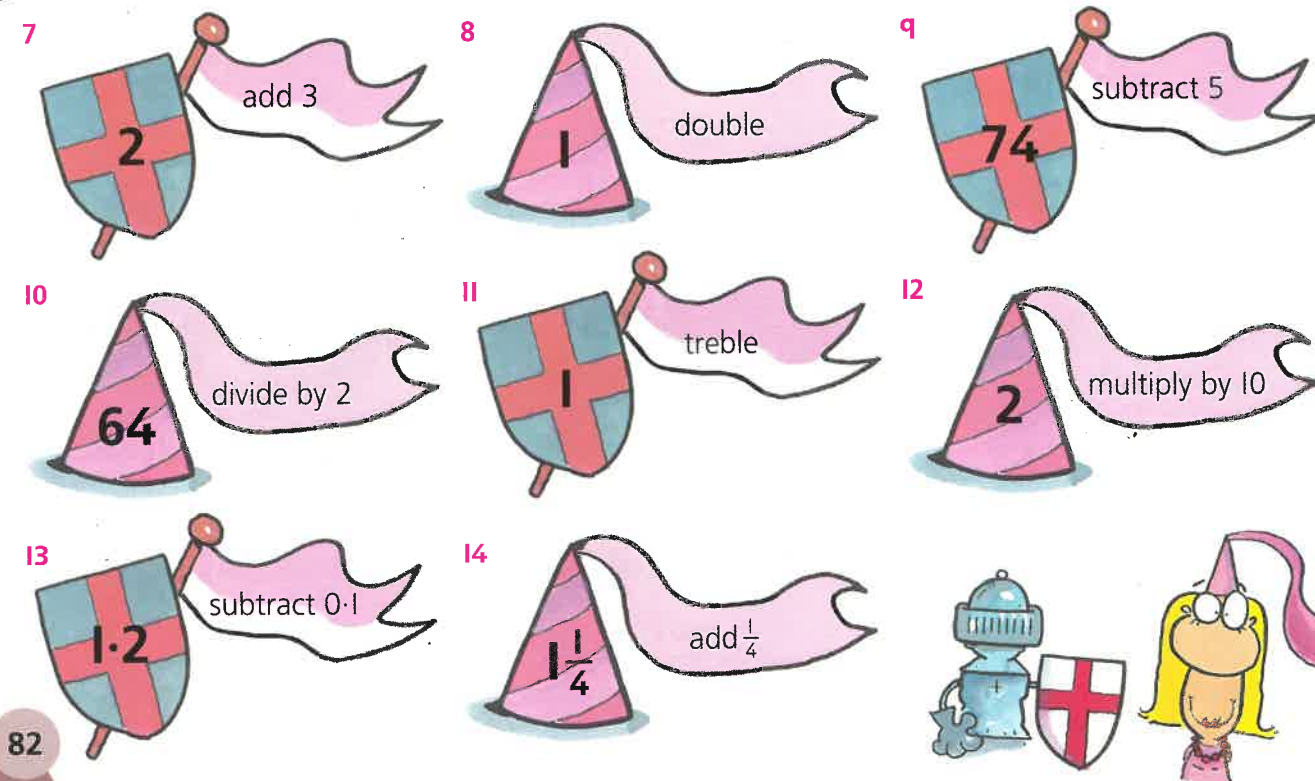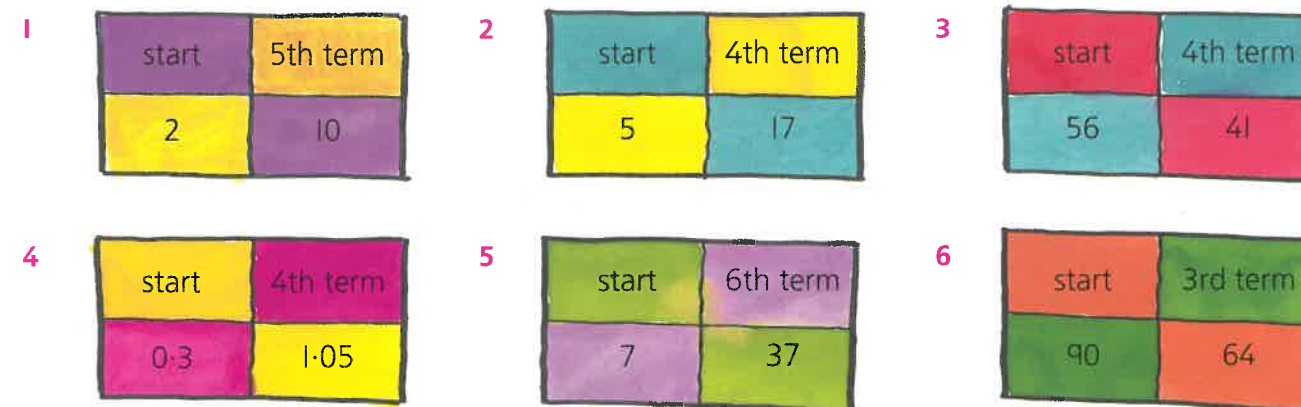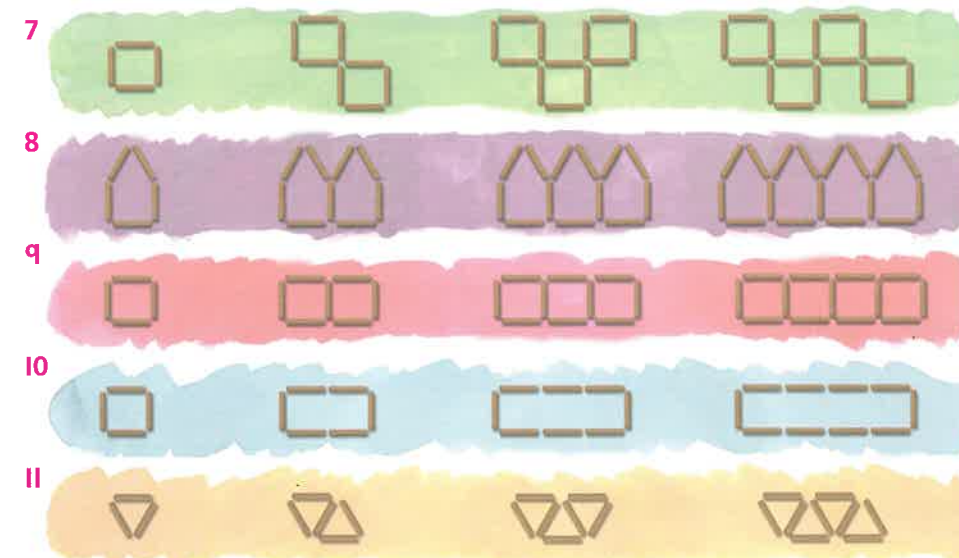
Each of these sequences has a rule involving adding or subtracting only. Write the first six numbers of each sequence.

| 1 | start | 5th term |
|---|---|---|
| | 2 | 10 |

| 2 | start | 4th term |
|---|---|---|
| | 5 | 17 |

| 3 | start | 4th term |
|---|---|---|
| | 56 | 41 |

| 4 | start | 4th term |
|---|---|---|
| | 0·3 | 1·05 |

| 5 | start | 6th term |
|---|---|---|
| | 7 | 37 |

| 6 | start | 3rd term |
|---|---|---|
| | 90 | 64 |

Describe the rule for each sequence.

Write the number of matchsticks used to make each shape. Write the number of matchsticks needed for the next three shapes in each sequence.

7 

8 

9 

10 

11 

Describe the rule for each sequence.