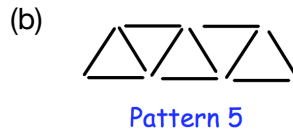
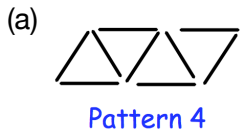


# Patterns - Answers

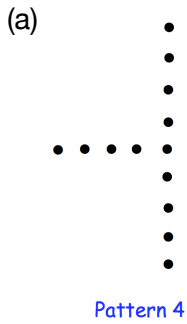
## Workout

Question 1:



- (c) 13 sticks
- (d) 21 sticks
- (e) Pattern 15
- (f) All the patterns use an odd number of sticks

Question 2:

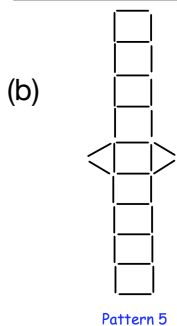


- (b) 19 dots
- (c) pattern 9
- (d) pattern 14
- (e) 2404 dots
- (f) 2398 dots

Question 3

(a)

| Pattern Number   | 1 | 2  | 3  | 4  |
|------------------|---|----|----|----|
| Number of Sticks | 8 | 14 | 20 | 26 |

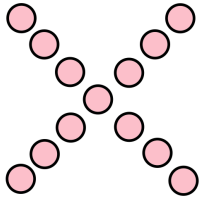


## Patterns - Answers

- (c) 182 sticks
- (d) 722 sticks
- (e) pattern 13
- (f) pattern 80

### Question 4

(a)



Pattern 4

- (b) 17 circles
- (c) Add 4 more circles
- (d) All patterns have an odd number of circles
- (e)

$$\text{Number of circles} = \text{Pattern number} \times \boxed{4} - \boxed{3}$$

### Question 5

- (a)  $3n + 1$
- (b) 166 sticks
- (c) pattern 33

### Question 6

- (a)  $4n - 1$
- (b) 879 sticks
- (c) pattern 35

### Question 7

- (a) 9 triangles
- (b) 8 squares
- (c)  $n + 1$
- (d)  $n + 3$

## Patterns - Answers

### Apply

Question 1:

(a)  $4n + 1$

(b) No, as the 25th term is 101 and the 26th term is 105

Question 2:

The true statements are: **B, E, F**