

Sequences Starters

Retrieve and Connect

Matchsticks



?

1. Draw the next shape.
2. How many matchsticks in the 4th?

Dots



?

3. Draw the next pattern.
4. How many dots in the 4th?

5. Complete The Sequence

13, 23, 33, __, __, __

Retrieve and Connect

Matchsticks



?

1. Draw the next shape.
2. How many matchsticks in the 4th?

Dots



?

3. Draw the next pattern.
4. How many dots in the 4th?

5. Complete The Sequence

13, 23, 33, 43, 53, 63 (add 10)

Answers



1.

2. 13 sticks

Answers



3.

4. 16 dots

Retrieve and Connect

Matchsticks



?

1. Draw shape 4.

2. How many matchsticks in shape 4?

Dots



?

3. Draw pattern 4.

4. How many dots in pattern 4?

5. Complete The Sequence

1, 3, 5, 7, __, __, __

Retrieve and Connect

Matchsticks



?

1. Draw shape 4.

2. How many matchsticks in shape 4?

Dots



?

3. Draw pattern 4.

4. How many dots in pattern 4?

5. Complete The Sequence

1, 3, 5, 7, 9, 11, 13 (add 2)

Answers

1.



2. 9 sticks

Answers

3.



4. 10 dots

Retrieve and Connect

Dots



1. Draw pattern 4.
2. How many dots in pattern 4?

Matchsticks



3. How many sticks in the 10th shape?
4. Find a rule.

5. Complete The Sequence

3, 6, 9, 12, __, __, __

6. 20th term?

Retrieve and Connect

Dots



1. Draw pattern 4.
2. How many dots in pattern 4?

Matchsticks



3. How many sticks in the 10th shape?
4. Find a rule.

5. Complete The Sequence

3, 6, 9, 12, 15, 18, 21 (add 3) 6. 20th term? 60

Answers



2. 20 dots (pattern is $n \times (n + 1)$ dots)

Answers

3. 31
4. Rule: $3n + 1$

Retrieve and Connect

Matchsticks



?

1. Find a rule for the number of matchsticks.
2. Use it to find the 20th term.

Dots



?

3. Find a rule for the number of dots.
4. Use it to find the 10th term.

5. Complete The Sequence

5, 9, 13, 17, __, __, __

6. n th term rule? 100th term?

Retrieve and Connect

Matchsticks



?

1. Find a rule for the number of matchsticks.
2. Use it to find the 20th term.

Dots



?

3. Find a rule for the number of dots.
4. Use it to find the 10th term.

5. Complete The Sequence

5, 9, 13, 17, 21, 25, 29 (add 4)

6. n th term rule? 100th term?

$$4n + 1,$$

$$401$$

Answers

1. Rule: $2n + 1$
2. 20th term: 41

Answers

3. Rule: $\frac{n(n+1)}{2}$
4. 10th term: 55

Retrieve and Connect

Dots



1. Draw shape 4.
2. How many dots in shape 5?
3. Try to find a rule.

Special Sequence

1, 1, 2, 3, 5, 8, __, __, __

4. Next three terms?
5. What is the rule?

6. Complete The Sequence

1, 4, 9, 16, __, __, __

7. 20th term?

Retrieve and Connect

Dots



1. Draw shape 4.
2. How many dots in shape 5?
3. Try to find a rule.

Special Sequence

1, 1, 2, 3, 5, 8, 13, 21, 34

4. Next three terms?
5. What is the rule?

6. Complete The Sequence

1, 4, 9, 16, 25, 36, 49 (square numbers n^2) 7. 20th term? 400

Answers



2. Shape 5 has 17 dots
3. Rule: $4n - 3$

Answers

4. 13, 21, 34
5. Fibonacci: add the two previous terms