Growing Shapes

Kindergarten | 2026-11-14 | Worksheet

An adult can read this aloud. Look at the shapes in each row. They repeat in the same order. Which shape comes next? Circle its letter.

The shapes repeat. Say them aloud: what comes after the last one?

1



A 

B 

C 

2



A 

B 

C 

3



A 

B 

C 

4



A 

B 

C 

Growing Shapes

Kindergarten | 2026-11-14 | Answer key

The ring marks the answer, and the missing shape is drawn in its place. Say the whole row aloud together.

1



A 

B 

C 

2



A 

B 

C 

3



A 

B 

C 

4



A 

B 

C 

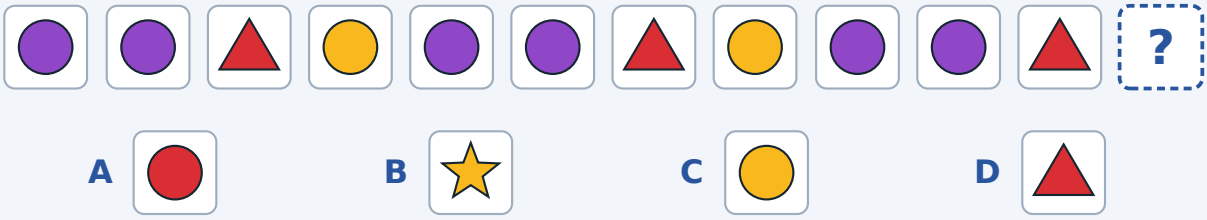
Growing Shapes

Grade 1 | 2026-11-14 | Worksheet

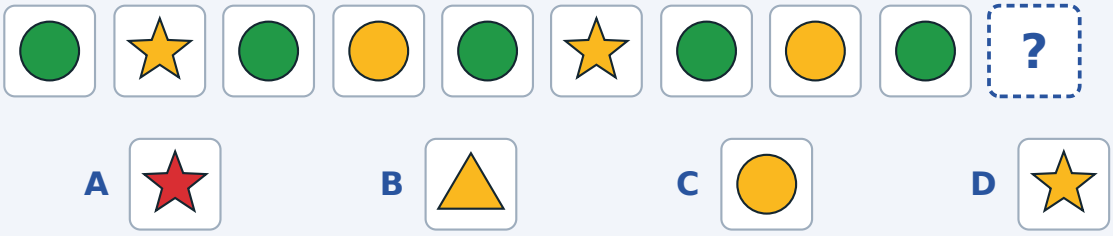
The shapes and colors in each row repeat in the same order. Say the row aloud, then circle the letter of the shape that comes next.

Check both the shape and the color. The whole group repeats.

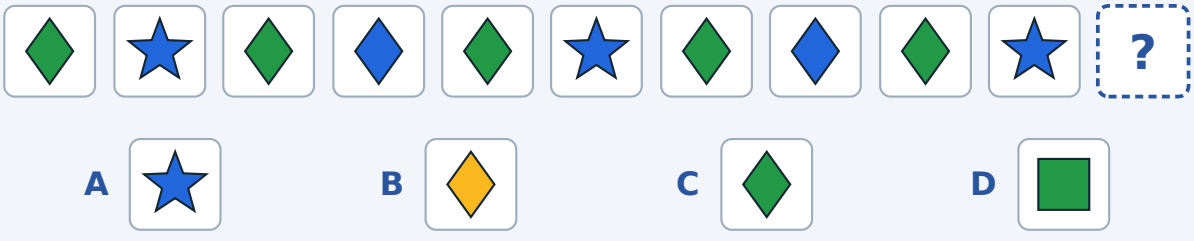
1



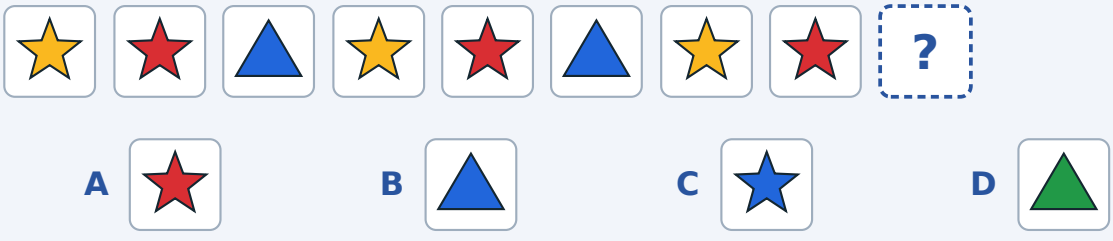
2



3



4

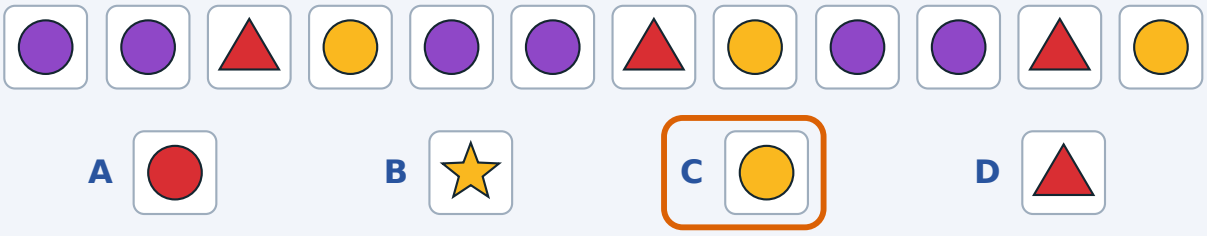


Growing Shapes

Grade 1 | 2026-11-14 | Answer key

The ring marks the answer, and the missing shape is drawn in its place. Say the whole row aloud together.

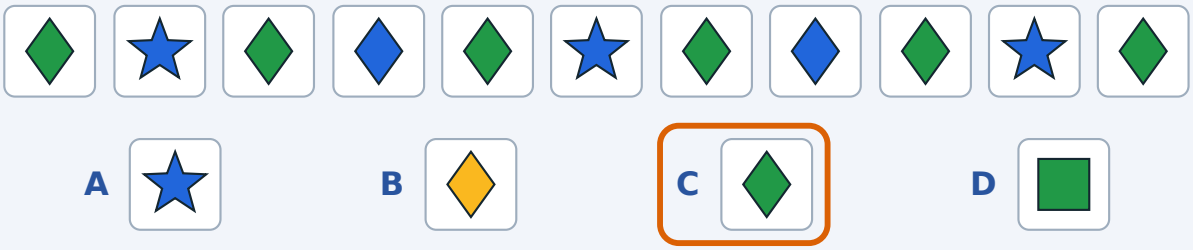
1



2



3



4



Growing Shapes

Grade 2 | 2026-11-14 | Worksheet

Each figure is built from squares, and every figure grows by the same rule. Count the squares in the figures you see, work out the rule and circle the letter of your answer.

The same number of squares is added each time. Count, then keep adding.

1 How many squares are in figure 5?



Figure 1

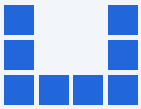


Figure 2

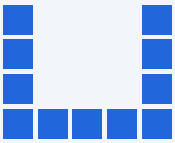


Figure 3

A 15

B 20

C 21

D 17

2 How many squares are in figure 4?



Figure 1



Figure 2



Figure 3

A 9

B 5

C 6

D 7

3 How many squares are in figure 5?



Figure 1



Figure 2



Figure 3

A 26

B 23

C 15

D 21

4 How many squares are in figure 4?



Figure 1

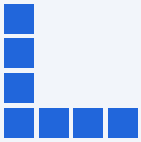


Figure 2

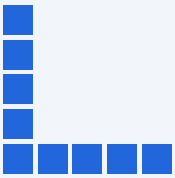


Figure 3

A 11

B 8

C 13

D 14

Growing Shapes

Grade 2 | 2026-11-14 | Answer key

The ring marks the answer. The orange numbers count the squares in each figure. Count again together and say the rule aloud.

1 How many squares are in figure 5?



Figure 1

5

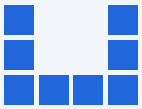


Figure 2

8

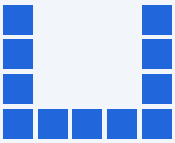


Figure 3

11

A 15

B 20

C 21

D 17

2 How many squares are in figure 4?



Figure 1

2



Figure 2

3



Figure 3

4

A 9

B 5

C 6

D 7

3 How many squares are in figure 5?



Figure 1

11



Figure 2

14



Figure 3

17

A 26

B 23

C 15

D 21

4 How many squares are in figure 4?



Figure 1

5



Figure 2

7

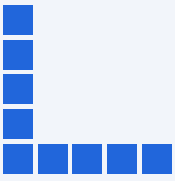


Figure 3

9

A 11

B 8

C 13

D 14

Growing Shapes

Grade 3 | 2026-11-14 | Worksheet

Each figure is built from squares, and every figure grows by the same rule. Count the squares in the figures you see, work out the rule and circle the letter of your answer.

Work out how many squares are added each time, then keep going to the figure asked for.

1 **How many squares are in figure 5?**



Figure 1 Figure 2 Figure 3

A 26
B 25
C 21
D 24

2 **How many squares are in figure 6?**



Figure 1 Figure 2 Figure 3

A 12
B 16
C 14
D 10

3 **How many squares are in figure 6?**

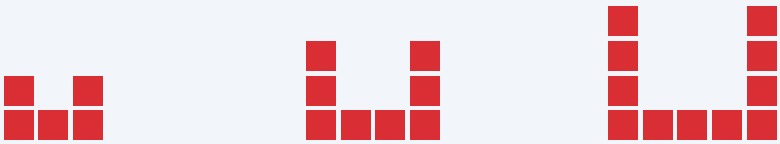


Figure 1 Figure 2 Figure 3

A 22
B 21
C 20
D 18

4 **How many squares are in figure 5?**



Figure 1 Figure 2 Figure 3

A 24
B 15
C 20
D 18

Growing Shapes

Grade 3 | 2026-11-14 | Answer key

The ring marks the answer. The orange numbers count the squares in each figure. Count again together and say the rule aloud.

1 How many squares are in figure 5?



Figure 1 **12** Figure 2 **15** Figure 3 **18**

A 26
B 25
C 21
D 24

2 How many squares are in figure 6?



Figure 1 **2** Figure 2 **4** Figure 3 **6**

A 12
B 16
C 14
D 10

3 How many squares are in figure 6?

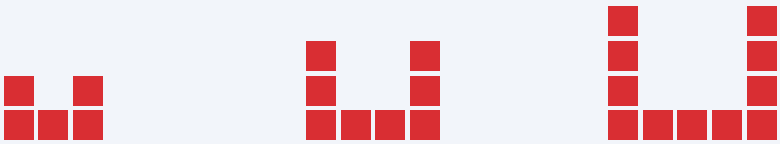


Figure 1 **5** Figure 2 **8** Figure 3 **11**

A 22
B 21
C 20
D 18

4 How many squares are in figure 5?



Figure 1 **8** Figure 2 **11** Figure 3 **14**

A 24
B 15
C 20
D 18

Growing Shapes

Grade 4 | 2026-11-14 | Worksheet

Each figure is built from squares, and every figure grows by the same rule. Count the squares in the figures you see, work out the rule and circle the letter of your answer.

Figure 1 gets the same jump again and again: use the jump to reach a far figure without drawing it.

1 **How many squares are in figure 12?**

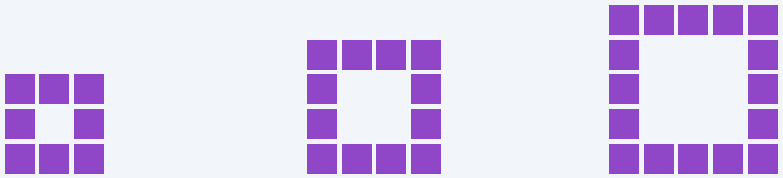


Figure 1 Figure 2 Figure 3

A 52
B 56
C 53
D 48

2 **How many squares are in figure 12?**



Figure 1 Figure 2 Figure 3

A 44
B 40
C 36
D 41

3 **How many squares are in figure 20?**

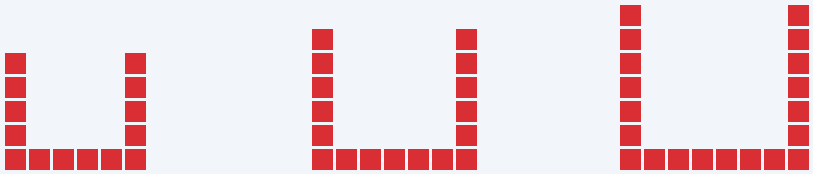


Figure 1 Figure 2 Figure 3

A 60
B 71
C 74
D 70

4 **How many squares are in figure 20?**

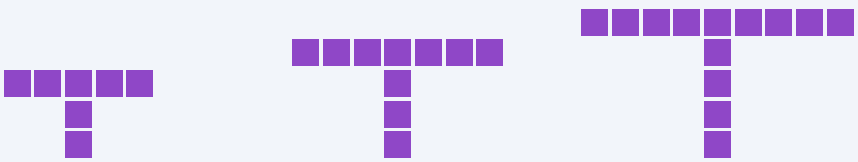


Figure 1 Figure 2 Figure 3

A 64
B 66
C 60
D 65

Growing Shapes

Grade 4 | 2026-11-14 | Answer key

The ring marks the answer. The orange numbers count the squares in each figure. Count again together and say the rule aloud.

1 How many squares are in figure 12?



Figure 1
8



Figure 2
12

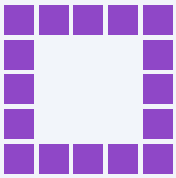


Figure 3
16

A 52
B 56
C 53
D 48

2 How many squares are in figure 12?



Figure 1
8



Figure 2
11



Figure 3
14

A 44
B 40
C 36
D 41

3 How many squares are in figure 20?

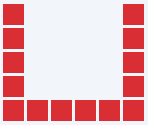


Figure 1
14

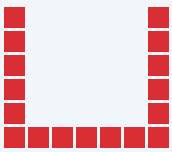


Figure 2
17

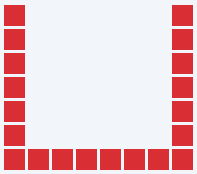


Figure 3
20

A 60
B 71
C 74
D 70

4 How many squares are in figure 20?



Figure 1
7

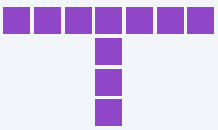


Figure 2
10

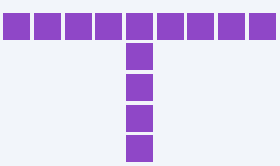


Figure 3
13

A 64
B 66
C 60
D 65

Growing Shapes

Grade 5 | 2026-11-14 | Worksheet

Each figure is built from squares, and every figure grows by the same rule. Count the squares in the figures you see, work out the rule and circle the letter of your answer.

Work backwards: which figure has exactly this many squares?

1 Which figure has 33 squares?



Figure 1 Figure 2 Figure 3

A 8
B 9
C 7
D 12

2 Which figure has 26 squares?



Figure 1 Figure 2 Figure 3

A 14
B 13
C 12
D 26

3 Which figure has 38 squares?



Figure 1 Figure 2 Figure 3

A 18
B 12
C 11
D 13

4 Which figure has 31 squares?

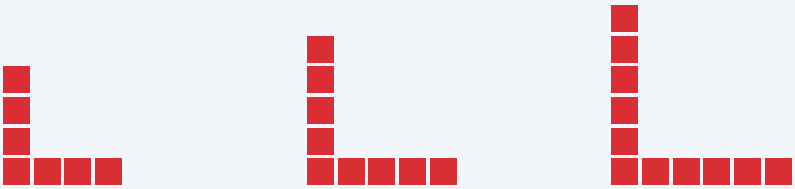


Figure 1 Figure 2 Figure 3

A 14
B 15
C 12
D 13

Growing Shapes

Grade 5 | 2026-11-14 | Answer key

The ring marks the answer. The orange numbers count the squares in each figure. Count again together and say the rule aloud.

1 **Which figure has 33 squares?**



Figure 1 — **12**

Figure 2 — **15**

Figure 3 — **18**

A 8 (marked)
B 9
C 7
D 12

2 **Which figure has 26 squares?**



Figure 1 — **2**

Figure 2 — **4**

Figure 3 — **6**

A 14
B 13 (marked)
C 12
D 26

3 **Which figure has 38 squares?**



Figure 1 — **5**

Figure 2 — **8**

Figure 3 — **11**

A 18
B 12 (marked)
C 11
D 13

4 **Which figure has 31 squares?**

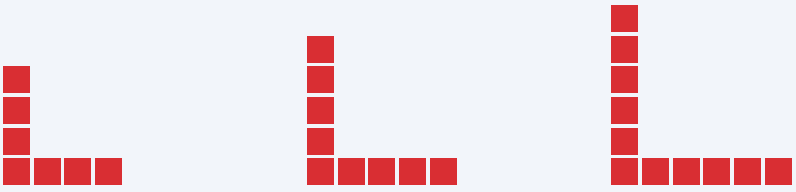


Figure 1 — **7**

Figure 2 — **9**

Figure 3 — **11**

A 14
B 15
C 12
D 13 (marked)

Growing Shapes

Grade 6 | 2026-11-14 | Worksheet

Each figure is built from squares, and every figure grows by the same rule. Count the squares in the figures you see, work out the rule and circle the letter of your answer.

The number of new squares grows by the same amount each time. Look at the differences.

1 **How many squares are in figure 7?**



Figure 1 Figure 2 Figure 3 Figure 4

A 57
B 56
C 58
D 44

2 **How many squares are in figure 7?**



Figure 1 Figure 2 Figure 3 Figure 4

A 49
B 51
C 47
D 37

3 **How many squares are in figure 5?**



Figure 1 Figure 2 Figure 3 Figure 4

A 14
B 15
C 21
D 16

4 **How many squares are in figure 8?**

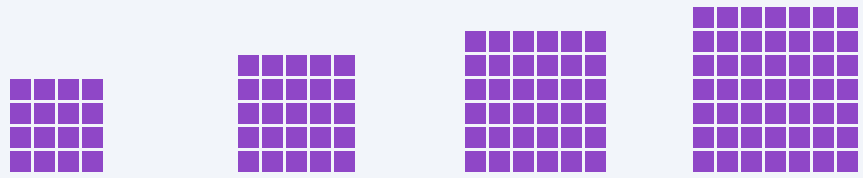


Figure 2 Figure 3 Figure 4 Figure 5

A 88
B 81
C 100
D 121

Growing Shapes

Grade 6 | 2026-11-14 | Answer key

The ring marks the answer. The orange numbers count the squares in each figure. Count again together and say the rule aloud.

1 How many squares are in figure 7?



Figure 1 **2** · Figure 2 **6** · Figure 3 **12** · Figure 4 **20**

A 57
B 56
C 58
D 44

2 How many squares are in figure 7?



Figure 1 **1** · Figure 2 **4** · Figure 3 **9** · Figure 4 **16**

A 49
B 51
C 47
D 37

3 How many squares are in figure 5?



Figure 1 **1** · Figure 2 **3** · Figure 3 **6** · Figure 4 **10**

A 14
B 15
C 21
D 16

4 How many squares are in figure 8?



Figure 2 **16** · Figure 3 **25** · Figure 4 **36** · Figure 5 **49**

A 88
B 81
C 100
D 121

Growing Shapes

Grade 7 | 2026-11-14 | Worksheet

Each figure is built from squares, and every figure grows by the same rule. Count the squares in the figures you see, work out the rule and circle the letter of your answer.

Look at the shape of each figure: rows times columns, or a square, gives the count for any figure.

1 **How many squares are in figure 15?**

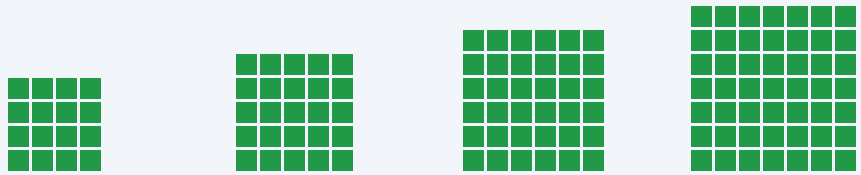


Figure 2 Figure 3 Figure 4 Figure 5

A 291
B 289
C 179
D 324

2 **How many squares are in figure 10?**

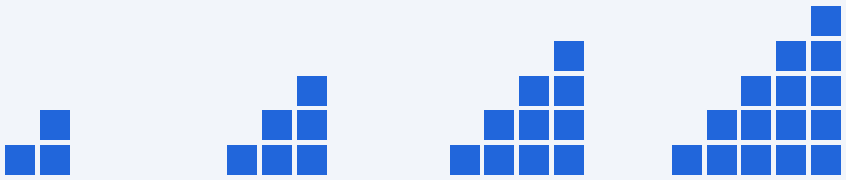


Figure 2 Figure 3 Figure 4 Figure 5

A 40
B 55
C 54
D 57

3 **How many squares are in figure 15?**

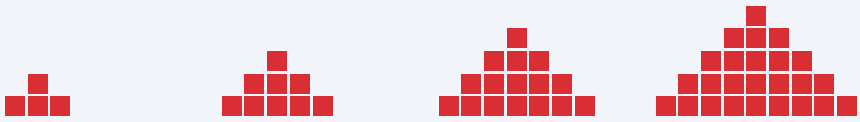


Figure 1 Figure 2 Figure 3 Figure 4

A 257
B 124
C 258
D 256

4 **How many squares are in figure 15?**



Figure 1 Figure 2 Figure 3 Figure 4

A 238
B 272
C 240
D 108

Growing Shapes

Grade 7 | 2026-11-14 | Answer key

The ring marks the answer. The orange numbers count the squares in each figure. Count again together and say the rule aloud.

1 How many squares are in figure 15?

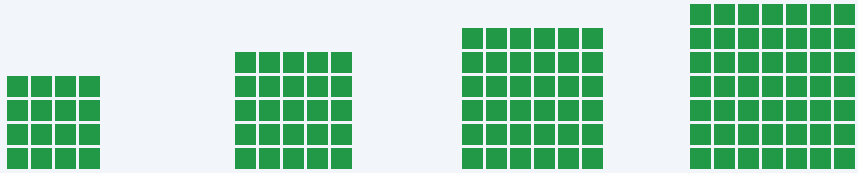


Figure 2 **16** | Figure 3 **25** | Figure 4 **36** | Figure 5 **49**

A 291
B 289
C 179
D 324

2 How many squares are in figure 10?

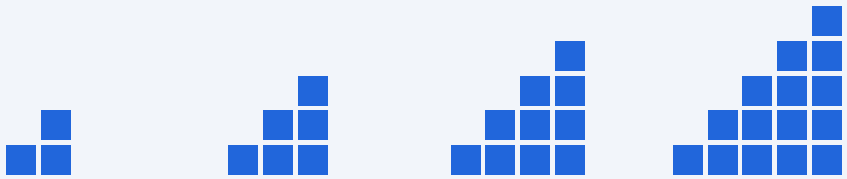


Figure 2 **3** | Figure 3 **6** | Figure 4 **10** | Figure 5 **15**

A 40
B 55
C 54
D 57

3 How many squares are in figure 15?

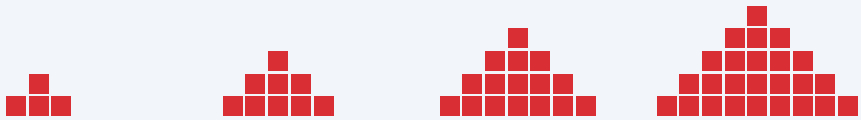


Figure 1 **4** | Figure 2 **9** | Figure 3 **16** | Figure 4 **25**

A 257
B 124
C 258
D 256

4 How many squares are in figure 15?



Figure 1 **2** | Figure 2 **6** | Figure 3 **12** | Figure 4 **20**

A 238
B 272
C 240
D 108

Growing Shapes

Grade 8 | 2026-11-14 | Worksheet

Each figure is built from squares, and every figure grows by the same rule. Count the squares in the figures you see, work out the rule and circle the letter of your answer.

Test each rule on the figures shown. Only one rule gives the right count for every figure.

1 **Which rule gives the number of squares in figure n?**

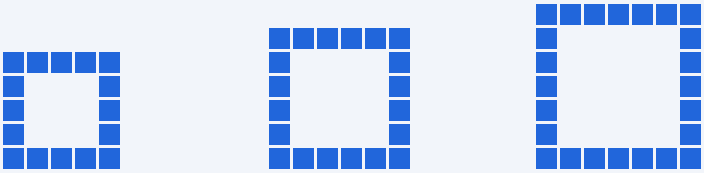


Figure 2 Figure 3 Figure 4

A $4n + 9$

B $4n + 8$

C $3n + 10$

D $n^2 + 12$

2 **Which rule gives the number of squares in figure n?**



Figure 1 Figure 2 Figure 3

A $3n + 5$

B $3n + 6$

C $9n$

D $2n + 7$

3 **Which rule gives the number of squares in figure n?**

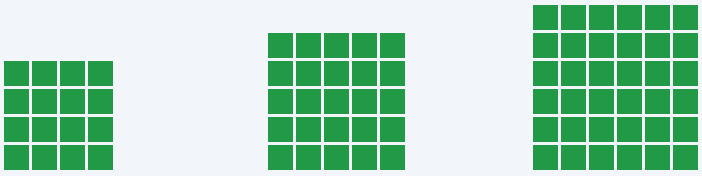


Figure 2 Figure 3 Figure 4

A $n^2 + 3n + 6$

B $n^2 + 4n + 4$

C $n^2 + 5n + 2$

D $n^2 + 4n + 3$

4 **Which rule gives the number of squares in figure n?**

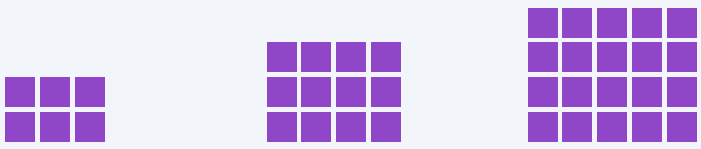


Figure 2 Figure 3 Figure 4

A $n^2 + n - 1$

B $2n^2 + n - 4$

C $n^2 + 2$

D $n^2 + n$

Growing Shapes

Grade 8 | 2026-11-14 | Answer key

The ring marks the answer. The orange numbers count the squares in each figure. Count again together and say the rule aloud.

1 **Which rule gives the number of squares in figure n?**

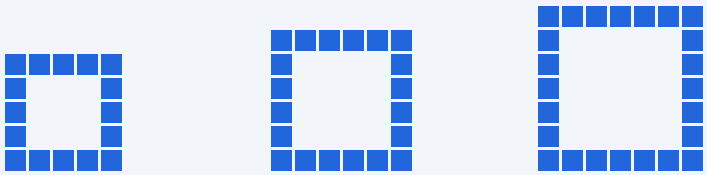


Figure 2 — **16**
Figure 3 — **20**
Figure 4 — **24**

A $4n + 9$
B $4n + 8$
C $3n + 10$
D $n^2 + 12$

2 **Which rule gives the number of squares in figure n?**



Figure 1 — **9**
Figure 2 — **12**
Figure 3 — **15**

A $3n + 5$
B $3n + 6$
C $9n$
D $2n + 7$

3 **Which rule gives the number of squares in figure n?**

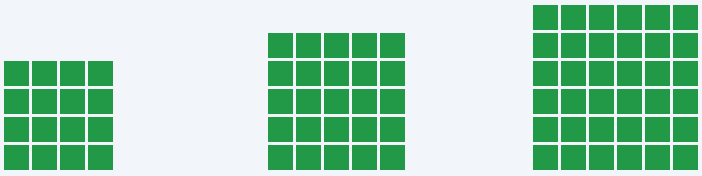


Figure 2 — **16**
Figure 3 — **25**
Figure 4 — **36**

A $n^2 + 3n + 6$
B $n^2 + 4n + 4$
C $n^2 + 5n + 2$
D $n^2 + 4n + 3$

4 **Which rule gives the number of squares in figure n?**



Figure 2 — **6**
Figure 3 — **12**
Figure 4 — **20**

A $n^2 + n - 1$
B $2n^2 + n - 4$
C $n^2 + 2$
D $n^2 + n$