

Patterns and Number Rules

Kindergarten | 2026-10-22 | Worksheet

An adult can read the repeat block. Continue the pattern; draw shapes in the two empty boxes.

01 Repeat block:



02 Repeat block:



03 Repeat block:



04 Repeat block:



05 Design your own pattern

Choose a different repeat block and draw it at least twice.



Patterns and Number Rules

Kindergarten | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Repeat block:



02 Repeat block:



03 Repeat block:



04 Repeat block:



05 Design your own pattern

Check: clear repeat block; at least two correct repeats; a different design.



Patterns and Number Rules

Grade 1 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Add 1 each step.

2 , 3 , 4 , 5 , ____ , ____

02 Add 2 each step.

12 , 14 , 16 , 18 , ____ , ____

03 Add 3 each step.

1 , 4 , 7 , 10 , ____ , ____

04 Subtract 2 each step.

18 , 16 , 14 , 12 , ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 1 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Add 1 each step.

2 , 3 , 4 , 5 , 6 , 7

02 Add 2 each step.

12 , 14 , 16 , 18 , 20 , 22

03 Add 3 each step.

1 , 4 , 7 , 10 , 13 , 16

04 Subtract 2 each step.

18 , 16 , 14 , 12 , 10 , 8

Final two values: 10, 8

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.



Patterns and Number Rules

Grade 2 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Add 5 each step.

11 , 16 , 21 , 26 , ____ , ____

02 Subtract 10 each step.

70 , 60 , 50 , 40 , ____ , ____

03 Add 4 each step.

4 , 8 , 12 , 16 , ____ , ____

04 Subtract 3 each step.

35 , 32 , 29 , 26 , ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 2 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Add 5 each step.

11 , 16 , 21 , 26 , 31 , 36

02 Subtract 10 each step.

70 , 60 , 50 , 40 , 30 , 20

03 Add 4 each step.

4 , 8 , 12 , 16 , 20 , 24

04 Subtract 3 each step.

35 , 32 , 29 , 26 , 23 , 20

Final two values: 23, 20

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.



Patterns and Number Rules

Grade 3 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Add 7 each step.

15 , 22 , 29 , 36 , ____ , ____

02 Subtract 8 each step.

96 , 88 , 80 , 72 , ____ , ____

03 Multiply by 2 each step.

7 , 14 , 28 , 56 , ____ , ____

04 Subtract 9 each step.

126 , 117 , 108 , 99 , ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 3 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Add 7 each step.

15 , 22 , 29 , 36 , 43 , 50

02 Subtract 8 each step.

96 , 88 , 80 , 72 , 64 , 56

03 Multiply by 2 each step.

7 , 14 , 28 , 56 , 112 , 224

04 Subtract 9 each step.

126 , 117 , 108 , 99 , 90 , 81

Final two values: 90, 81

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.



Patterns and Number Rules

Grade 4 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Add 3, then 5; repeat in that order.

8 , 11 , 16 , 19 , ____ , ____

02 Multiply by 2 each step.

21 , 42 , 84 , 168 , ____ , ____

03 Add 4, then -2; repeat in that order.

14 , 18 , 16 , 20 , ____ , ____

04 Divide by 2 each step.

128 , 64 , 32 , 16 , ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 4 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Add 3, then 5; repeat in that order.

8 , 11 , 16 , 19 , 24 , 27

02 Multiply by 2 each step.

21 , 42 , 84 , 168 , 336 , 672

03 Add 4, then -2; repeat in that order.

14 , 18 , 16 , 20 , 18 , 22

04 Divide by 2 each step.

128 , 64 , 32 , 16 , 8 , 4

Final two values: 8, 4

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.



Patterns and Number Rules

Grade 5 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Add $\frac{1}{4}$ each step.

$\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 , ____ , ____

02 Subtract $\frac{1}{2}$ each step.

$\frac{7}{2}$, 3 , $\frac{5}{2}$, 2 , ____ , ____

03 Add $\frac{1}{3}$ each step.

$\frac{2}{3}$, 1 , $\frac{4}{3}$, $\frac{5}{3}$, ____ , ____

04 Add $\frac{3}{4}$ each step.

$\frac{9}{2}$, $\frac{21}{4}$, 6 , $\frac{27}{4}$, ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 5 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Add $\frac{1}{4}$ each step.

$\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 , $\frac{5}{4}$, $\frac{3}{2}$

02 Subtract $\frac{1}{2}$ each step.

$\frac{7}{2}$, 3 , $\frac{5}{2}$, 2 , $\frac{3}{2}$, 1

03 Add $\frac{1}{3}$ each step.

$\frac{2}{3}$, 1 , $\frac{4}{3}$, $\frac{5}{3}$, 2 , $\frac{7}{3}$

04 Add $\frac{3}{4}$ each step.

$\frac{9}{2}$, $\frac{21}{4}$, 6 , $\frac{27}{4}$, $\frac{15}{2}$, $\frac{33}{4}$

Final two values: $\frac{15}{2}$, $\frac{33}{4}$

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.



Patterns and Number Rules

Grade 6 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Add 4 each step.

-12 , -8 , -4 , 0 , ____ , ____

02 Subtract 7 each step.

24 , 17 , 10 , 3 , ____ , ____

03 Multiply by -2 each step.

-3 , 6 , -12 , 24 , ____ , ____

04 Add -5, then 3; repeat in that order.

8 , 3 , 6 , 1 , ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 6 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Add 4 each step.

-12 , -8 , -4 , 0 , 4 , 8

02 Subtract 7 each step.

24 , 17 , 10 , 3 , -4 , -11

03 Multiply by -2 each step.

-3 , 6 , -12 , 24 , -48 , 96

04 Add -5, then 3; repeat in that order.

8 , 3 , 6 , 1 , 4 , -1

Final two values: 4, -1

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.



Patterns and Number Rules

Grade 7 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Multiply by 2, then add 1 each step.

2 , 5 , 11 , 23 , ____ , ____

02 Multiply by 3, then add -1 each step.

1 , 2 , 5 , 14 , ____ , ____

03 Multiply by -1, then add 4 each step.

5 , -1 , 5 , -1 , ____ , ____

04 Multiply by 2, then add 3 each step.

-4 , -5 , -7 , -11 , ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 7 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Multiply by 2, then add 1 each step.

2 , 5 , 11 , 23 , 47 , 95

02 Multiply by 3, then add -1 each step.

1 , 2 , 5 , 14 , 41 , 122

03 Multiply by -1, then add 4 each step.

5 , -1 , 5 , -1 , 5 , -1

04 Multiply by 2, then add 3 each step.

-4 , -5 , -7 , -11 , -19 , -35

Final two values: -19, -35

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.



Patterns and Number Rules

Grade 8 | 2026-10-22 | Worksheet

Use the rule on each row to fill both blanks. For question 4, explain the final step to check it.

01 Add 2, then 4, then 6; increase the added amount by 2 each step.

1 , **3** , **7** , **13** , ____ , ____

02 Add 3, then 6, then 9; increase the added amount by 3 each step.

2 , **5** , **11** , **20** , ____ , ____

03 Multiply by -2, then add 1 each step.

-1 , **3** , **-5** , **11** , ____ , ____

04 Add $\frac{1}{2}$, then $-\frac{3}{2}$; repeat in that order.

4 , **$\frac{9}{2}$** , **3** , **$\frac{7}{2}$** , ____ , ____

05 Design your own pattern

Choose a new start and a clear rule. Write six terms.



Patterns and Number Rules

Grade 8 | 2026-10-22 | Answer key

Check answers against each stated rule.

01 Add 2, then 4, then 6; increase the added amount by 2 each step.

1 , 3 , 7 , 13 , 21 , 31

02 Add 3, then 6, then 9; increase the added amount by 3 each step.

2 , 5 , 11 , 20 , 32 , 47

03 Multiply by -2, then add 1 each step.

-1 , 3 , -5 , 11 , -21 , 43

04 Add $\frac{1}{2}$, then $-\frac{3}{2}$; repeat in that order.

4 , $\frac{9}{2}$, 3 , $\frac{7}{2}$, 2 , $\frac{5}{2}$

Final two values: 2, $\frac{5}{2}$

05 Design your own pattern

Check: clear start and rule; six terms follow it; different from the examples.

