



Year 6 Worksheet 4: Algebra and Sequences

Level: Beginner

1. What is the value of a in $a + 5 = 12$?
2. Complete the sequence: 3, 6, 9, ____, ____
3. Solve: $b - 4 = 10$
4. What comes next: 12, 17, 22, ____
5. If $x = 7$, what is $3x$?
6. Solve: $2y = 16$
7. Fill in the rule: input '3' output
8. Solve: $a \div 4 = 6$
9. What is the next term: 1, 4, 9, 16, ____
10. Complete the pattern: 100, 90, 80, ____

[Use the space below to work out your answers. Show all your working.]



Year 6 Worksheet 4: Algebra and Sequences

Level: Intermediate

1. Solve: $3a + 4 = 19$
2. Find the n th term: 5, 10, 15, 20, ...
3. Create a sequence that increases by 7.
4. Solve: $x - 9 = 14$
5. What is the next term: 2, 5, 10, 17, ____
6. Solve: $4x - 5 = 23$
7. What's the rule for the sequence: 2, 4, 8, 16?
8. Create a two-step function machine.
9. If $y = 6$, find $3y - 2$
10. What is the 10th term in $2n + 1$?

[Use the space below to work out your answers. Show all your working.]



Year 6 Worksheet 4: Algebra and Sequences

Level: Difficult

1. Solve: $5x + 2 = 37$
2. Write the n th term for: 4, 7, 10, 13...
3. Find the missing: $2x - 5 = 13$
4. Create and solve your own linear equation.
5. What's the 15th term in the sequence $3n - 1$?
6. Find x : $3(x + 2) = 21$
7. Write a sequence that follows the rule: $n' + 1$
8. Solve: $2x + 3 = 4x - 5$
9. What is the n th term of 12, 17, 22, 27, ...?
10. Complete the pattern: 1, 2, 4, 8, ____, ____

[Use the space below to work out your answers. Show all your working.]



Year 6 Worksheet 4: Algebra and Sequences

Level: Super Challenging

1. Write and solve an equation where x is multiplied and added.
2. Describe a pattern growing with square numbers.
3. If $3a - 4 = 5$, what is a ?
4. Create a function machine that includes $'$ and $-$
5. Solve: $5(x + 2) = 45$
6. n th term for 7, 11, 15, 19,...
7. A pattern increases by 6 each time. What is the 25th term?
8. Solve: $x/2 + 3 = 10$
9. Write an algebraic expression for double a number minus 4.
10. If $y = 3n + 2$, what is y when $n = 10$?

[Use the space below to work out your answers. Show all your working.]