

Boost Free Lessons - Year 7 Maths

Lesson 13: Words to Algebraic Expressions

Name: _____ Grade: _____ Date: _____

Worked Example 1

Write “seven more than triple a number n ” as an algebraic expression.

1. Break the sentence into parts.
2. “Triple a number n ” means $3 \times n$, which is written $3n$.
3. “Seven more than” means add 7 to that.

$3n + 7$

Worked Example 2

Write “the sum of a number x and 4, all divided by 2”.

1. “The sum of x and 4” is $x + 4$.
2. “All divided by 2” tells you the **whole** sum is divided, not just part of it.
3. Brackets (or a fraction bar) are needed to show this.

$(x + 4) \div 2$, or $\frac{x + 4}{2}$

Remember: Word order matters. “5 less than n ” is $n - 5$, **not** $5 - n$. When a whole expression is multiplied or divided, use brackets.



Question 1: Write an algebraic expression for each of the following.

1. 5 more than x
2. 8 less than y
3. double m
4. a number k divided by 4
5. the sum of a and b
6. 3 times n , then add 2
7. 10 subtract p
8. half of w
9. the product of 6 and t
10. 4 less than double c



Question 2: Write an algebraic expression for each of the following.

1. the sum of x and 7, multiplied by 3
2. 9 more than the product of 4 and n
3. a number y decreased by 6, then divided by 5
4. the square of a number m
5. twice the sum of p and q
6. 20 divided by a number d
7. 5 less than the quotient of h and 2
8. three times a number t , subtracted from 15



Question 3: Answer the following questions.

1. A taxi charges \$4 flagfall plus \$2 for every kilometre. Write an expression for the cost of a trip of k kilometres.
2. A rectangle is x cm wide, and its length is 5 cm more than its width. Write and simplify an expression for its perimeter.
3. A Boost membership costs \$ m per week. Write an expression for the cost of 8 weeks.
4. Mia has t dollars. She spends \$15, then triples whatever is left. Write an expression for the amount she ends up with.
5. A pizza is cut into 8 slices and shared equally between n people. Write an expression for the number of slices each person gets.





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Answers : Words to Algebraic Expressions**Question 1**

1. $x + 5$

2. $y - 8$

3. $2m$

4. $\frac{k}{4}$

5. $a + b$

6. $3n + 2$

7. $10 - p$

8. $\frac{w}{2}$

9. $6t$

10. $2c - 4$

Question 2

1. $3(x + 7)$

2. $4n + 9$

3. $\frac{y - 6}{5}$

4. m^2

5. $2(p + q)$

6. $\frac{20}{d}$

7. $\frac{h}{2} - 5$

8. $15 - 3t$

Question 3

1. $4 + 2k$

2. $2x + 2(x + 5) = 4x + 10$

3. $8m$

4. $3(t - 15)$

5. $\frac{8}{n}$

