

Name _____

Date _____

Maths vocabulary — answers

46 tasks in five styles, covering every key word in Unit 1.

A · Unscramble the term — Rearrange the letters to make the term that matches the definition.

1 oxerpseisn

A collection of numbers and letters with no equals sign.

Example: $5n + 4$ is an expression.

Answer: expression

The word is **expression** — A collection of numbers and letters with no equals sign.

2 oqeautin

Numbers and letters together with an equals sign.

Example: $5n + 4 = 19$ is an equation.

Answer: equation

The word is **equation** — Numbers and letters together with an equals sign.

3 retm

One part of an expression, separated by + or −.

Example: $5n + 4$ has two terms: $5n$ and 4 .

Answer: term

The word is **term** — One part of an expression, separated by + or −.

4 tocfeficne

The number that multiplies a variable.

Example: In $5n$ the coefficient of n is 5 .

Answer: coefficient

The word is **coefficient** — The number that multiplies a variable.

5 nocsnatt

A number on its own, whose value never changes.

Example: In $5n + 4$ the constant is 4 .

Answer: constant

The word is **constant** — A number on its own, whose value never changes.

6 lavirbae

A letter representing a quantity that can change.

Example: In $A = lw$, both l and w are variables.

Answer: variable

The word is **variable** — A letter representing a quantity that can change.

7 aofmrlu

A rule showing the relationship between quantities.

Example: $A = l \times w$ is the formula for the area of a rectangle.

Answer: formula

The word is **formula** — A rule showing the relationship between quantities.

8 tussbitute

To replace a letter with a number.

Example: Substituting $x = 4$ into $3x + 2$ gives 14.

Answer: substitute

The word is **substitute** — To replace a letter with a number.

9 nxeapd

To multiply out brackets and write the expression without them.

Example: $4(n + 3)$ expands to $4n + 12$.

Answer: expand

The word is **expand** — To multiply out brackets and write the expression without them.

10 oosulitn

The value of the unknown that makes the equation true.

Example: The solution of $2y + 4 = 16$ is $y = 6$.

Answer: solution

The word is **solution** — The value of the unknown that makes the equation true.

B · Fill in the gaps — Use a word from the box to complete each sentence.

- 11** Terms with exactly the same letters are called ____.

Word box: □

Answer: like terms

$3x$ and $5x$ are like terms; $3x$ and $5y$ are not.

- 12** To ____ an expression means to write it as short as possible.

Word box: □

Answer: simplify

$4x + 2x$ simplifies to $6x$.

- 13** To ____ brackets means to multiply out every term inside them.

Word box: □

Answer: expand

$4(n + 3)$ expands to $4n + 12$.

- 14** To ____ means to replace a letter with a number.

Word box: □

Answer: substitute

Substituting $x = 4$ into $3x + 2$ gives 14.

- 15** To ____ an equation means to find the value of the unknown.

Word box: □

Answer: solve

Solving $x + 5 = 12$ gives $x = 7$.

- 16** A rule linking quantities, such as $A = lw$, is called a _____.

Word box: □

Answer: formula

A formula always contains an equals sign.

- 17** The number in front of a letter is called the _____.

Word box: □

Answer: coefficient

In $7n$ the coefficient is 7.

- 18** A statement using $<$ or $>$ is called an _____.

Word box: □

Answer: inequality

$x > 5$ is an inequality.

C · Choose the correct ending — Pick the reason that correctly finishes each sentence.

- 19** $5n + 4$ is an expression and not an equation because ...

- ☐ it contains a letter
- ☐ it has no equals sign
- ☐ it has two terms

Answer: it has no equals sign

An equation must contain an equals sign; an expression does not.

- 20** $3x$ and $5x$ are like terms because ...

- ☐ they both contain a number
- ☐ they contain exactly the same letter
- ☐ they add up to $8x$

Answer: they contain exactly the same letter

Like terms must have the same letter to the same power.

- 21** $4(n + 3) = 4n + 12$ because ...

- ☐ you add 4 to both terms
- ☐ you multiply both terms inside by the 4
- ☐ 4 and 3 make 12

Answer: you multiply both terms inside by the 4

Expanding means multiplying every term inside the brackets.

- 22** $x + 5 = 12$ has the solution $x = 7$ because ...

- ☐ 7 is smaller than 12
- ☐ $7 + 5$ gives 12
- ☐ $12 - 5$ is an inverse

Answer: $7 + 5$ gives 12

The solution is the value that makes both sides equal.

- 23** You subtract 4 first when solving $2y + 4 = 16$ because ...

- ☐ 4 is smaller than 16
- ☐ you undo the operations in reverse order
- ☐ you cannot divide 16 by 2

Answer: you undo the operations in reverse order

The expression was built by multiplying then adding, so you undo the adding first.

- 24** The smallest integer with $x > 5$ is 6 because ...
- ☐ 5 is not included and 6 is the next whole number
 - ☐ 5 is included but 6 is bigger
 - ☐ x cannot be a decimal

Answer: 5 is not included and 6 is the next whole number

The symbol $>$ is strict, so the boundary value itself is excluded.

- 25** $3x + 4y$ cannot be simplified because ...
- ☐ the numbers are different
 - ☐ the terms contain different letters
 - ☐ there is no equals sign

Answer: the terms contain different letters

Only like terms can be combined.

- 26** $(-4)^2 = 16$ because ...
- ☐ a minus and a minus make a plus
 - ☐ -4 multiplied by itself is 16
 - ☐ squaring always removes the sign

Answer: -4 multiplied by itself is 16

$(-4) \times (-4) = 16$ — two negative factors give a positive.

D · Match the definition — Type the term that matches each definition.

- 27** Which term means: *A collection of numbers and letters with no equals sign.*

Answer: expression

expression — $5n + 4$ is an expression.

- 28** Which term means: *Numbers and letters together with an equals sign.*

Answer: equation

equation — $5n + 4 = 19$ is an equation.

- 29** Which term means: *The number that multiplies a variable.*

Answer: coefficient

coefficient — In $5n$ the coefficient of n is 5.

- 30** Which term means: *A number on its own, whose value never changes.*

Answer: constant

constant — In $5n + 4$ the constant is 4.

- 31** Which term means: *A rule showing the relationship between quantities.*

Answer: formula

formula — $A = l \times w$ is the formula for the area of a rectangle.

- 32** Which term means: *To replace a letter with a number.*

Answer: substitute

substitute — Substituting $x = 4$ into $3x + 2$ gives 14.

- 33** Which term means: *To multiply out brackets and write the expression without them.*

Answer: expand

expand — $4(n + 3)$ expands to $4n + 12$.

- 34** Which term means: *To find the value of the unknown that makes an equation true.*

Answer: solve

solve — Solving $x + 5 = 12$ gives $x = 7$.

- 35** Which term means: *The value of the unknown that makes the equation true.*

Answer: solution

solution — The solution of $2y + 4 = 16$ is $y = 6$.

- 36** Which term means: *A statement that one quantity is greater or less than another.*

Answer: inequality

inequality — $x > 5$ is an inequality.

- 37** Which term means: *Terms with exactly the same letters to the same powers.*

Answer: like terms

like terms — $5a$ and $2a$ are like terms; $5a$ and $2b$ are not.

- 38** Which term means: *To write your own formula from a situation.*

Answer: derive

derive — From “\$8 a book” you derive $C = 8n$.

E · Reading and writing algebra — Read algebraic language and know what each instruction asks for.

- 39** How do you read $5n$ aloud?

- ☐ five n
- ☐ five plus n
- ☐ n five
- ☐ five to the n

Answer: five n

$5n$ means $5 \times n$ and is read simply as “five n”.

- 40** How do you read a^2 aloud?

- ☐ a two
- ☐ a squared
- ☐ a cubed
- ☐ two a

Answer: a squared

An index of 2 is read as “squared”.

- 41** How do you read $x/2$ aloud?

- ☐ x two
- ☐ x over two
- ☐ two x
- ☐ x minus two

Answer: x over two

A fraction is read as “over”, and here it means $x \div 2$.

42 In the instruction “simplify $3x + 2x$ ”, what are you being asked to do?

- ☐ Solve for x
- ☐ Collect the like terms
- ☐ Substitute a number
- ☐ Expand a bracket

Answer: Collect the like terms

Simplify means write it as short as possible: $3x + 2x = 5x$.

43 In the instruction “expand $4(n + 3)$ ”, what are you being asked to do?

- ☐ Solve for n
- ☐ Remove the brackets by multiplying out
- ☐ Make the expression longer on purpose
- ☐ Substitute a value

Answer: Remove the brackets by multiplying out

Expanding gives $4n + 12$.

44 In the instruction “solve $2y + 4 = 16$ ”, what are you being asked to do?

- ☐ Simplify the left-hand side
- ☐ Find the value of y
- ☐ Expand the brackets
- ☐ Write a formula

Answer: Find the value of y

Solving means finding the value that makes the equation true: $y = 6$.

45 A question says “substitute $x = 4$ ”. What do you do?

- ☐ Replace every x with 4
- ☐ Solve for x
- ☐ Multiply the whole expression by 4
- ☐ Add 4 to the expression

Answer: Replace every x with 4

Substitution replaces the letter with its value.

46 A question says “derive a formula”. What do you do?

- ☐ Look one up
- ☐ Write your own formula for the situation
- ☐ Solve an equation
- ☐ Expand brackets

Answer: Write your own formula for the situation

To derive is to construct the rule yourself, saying what each letter means.