

Collecting Like Terms

ANSWERS

1

Simplify $4x + 5 - 2x + 1$



x	number
$4x - 2x$	$5 + 1$
$2x$	6

Answer $2x + 6$

2

Simplify $3x + 2 + 2x - 1$



x	number
$3x + 2x$	$2 - 1$
$5x$	1

Answer $5x + 1$

3

Simplify $6x + 4 - 3x + 2$



x	number
$6x - 3x$	$4 + 2$
$3x$	6

Answer $3x + 6$

4

Simplify $2x + 7 + 3x - 4$



x	number
$2x + 3x$	$7 - 4$
$5x$	3

Answer $5x + 3$

5

Simplify $3x + 2y + 2x + 4y$

x	y
$3x + 2x$	$2y + 4y$
$5x$	$6y$

Answer $5x + 6y$

6

Simplify $5a + 3b - 2a + b$

a	b
$5a - 2a$	$3b + b$
$3a$	$4b$

Answer $3a + 4b$

7

A rectangle has sides of $3x$ and $2x + 1$. Write an expression for its perimeter. Simplify it.

$$3x + 3x + 2x + 1 + 2x + 1$$

Answer $10x + 2$

8

Find the missing term.
 $5a + ? - 2a = 3a + 4b$

$$5a - 2a \text{ is already } 3a$$

Answer $4b$

Collecting Like Terms further practice

ANSWERS

9

Simplify $7m + 3n - 2m + n$

Answer $5m + 4n$

10

Simplify $3p - 5 - 7p + 9$

$$3p - 7p = -4p \text{ and } -5 + 9 = 4$$

Answer $-4p + 4$

11

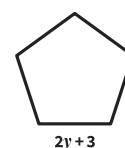
Simplify $4x^2 + 3x - x^2 + 2x$

$$x^2 \text{ and } x \text{ are not like terms}$$

Answer $3x^2 + 5x$

12

This is a regular pentagon. Write an expression for its perimeter. Simplify it.



$$\text{five sides of } 2y + 3$$

Answer $10y + 15$

13

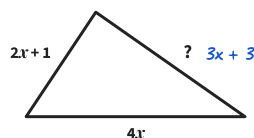
Pens cost p pence each and rulers cost r pence each. Amy buys 3 pens and 2 rulers. Ben buys 4 pens and 1 ruler. Write an expression for the total amount, in pence, that Amy and Ben spend.

$$3p + 2r + 4p + r$$

Answer $7p + 3r$

14

The perimeter of this triangle is $9x + 4$. Find an expression for the missing side.

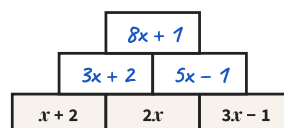


$$2x + 1 + 4x = 6x + 1$$

Answer $3x + 3$

15

Each brick is the sum of the two bricks below it. Find an expression for the top brick. Simplify it.



Top brick $8x + 1$

16

Jay simplifies $5x + 3y - 2x + y$ and gets $3x + 3y$. What has Jay done wrong? Find the right answer.

$$y \text{ means } 1y, \text{ so } 3y + y = 4y$$

Answer $3x + 4y$