

MYP4/5 - Year 10/11

variables

Like terms

Unit 1 Assessment

Week 42

"Algebraic expressions, Substitutions, Like terms,

pop?
quiz

coefficients

Terms

Distributive Law

2019-2020

1. Collect the like terms to simplify:

a. $7a + 5b + 2a - 6b$

b. $p - 5q + 3p - q$

c. $a^2 - 5ab + 4ab + b^2$

d. $4p^2 - 5p + 1 - p^2 - 2p - 7$

2. Expand the brackets and simplify if possible

a. $3(2x + 1) =$

b. $a(a - b) =$

c. $(2x - 3)(4x + 5) =$

d. $5(x - 2y) - 2(2x - 3y) =$

3. Prove that $(a + b)^2 = a^2 + 2ab + b^2$

4. Work out the value of these terms if $x = 4$, $y = 5$ and $z = -2$

a. $3y$

b. $4z - y - x^2$

c. $3z^2$

d. $3(-z)^2$

e. $\frac{y^2}{x-z}$

f. $\frac{2x+z}{y}$

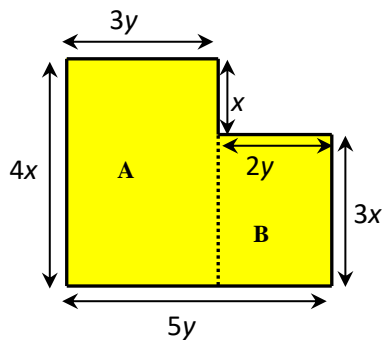
5. Expand and simplify:

a. $5b - a(a-3)(a-1)$

b. $(a-b)(a-b)(a-b)$

c. $x(x-4) - 2x(x+1)$

6. Write down the algebraic expressions for the perimeter AND the area of the following shape:



7. For the above shape calculate the area and perimeter for $x=4m$ and $y=10m$

8. In the expression:

$$5a - 6ab + 2a^2 - a^3 + 2a^2b + 4$$

- What is the constant term?
- What is the coefficient of "a"?
- What is the coefficient of a^3 ?
- How many terms are there?

To earn a star:



Prove that $(-a - b)^2 = (a + b)^2$

Time to complete the test: **45 minutes**

