Algebra

1. Match the words with the definitions below.

Algebra	**Coefficient**	**Degree**	**Monomial**
Variable	**Literal Part**	**Like terms**	**Polynomial**

A. In mathematics, letters are often used to represent numbers that we do not know, so you could say 'x' number of buildings, or 'q' number of buildings. This is called a _____.

B. _____ is a branch of mathematics in which symbols, usually letters of the alphabet, represent numbers or members of a specified set. These symbols are used to represent quantities so that we can use letters for the arithmetical operations such as addition, subtraction, multiplication, division and the power.

C. A _____ is an algebraic expression consisting of only one term. This expression has a known value multiplied by one or some unknown values represented by letters with exponents that must be constant and positive whole numbers.

D. A _____ is the addition or subtraction of two or more monomials.

E. The _____ of a term is the exponent of a term.

F. A _____ is a number used to multiply a variable.

G. _____ are terms that contain the same variables raised to the same powers. They can be combined to form a single term.

H. The _____ of an equation is made up of the letters and its exponents.

2. *Fill in the chart below*

Monomial	Coefficient	Degree	Variable	Literal Part
$3x^2y^3$				
$-2abc^2$				
$5/3x^2t$				

3. *Find the expression.*

For example: I start with x, add 4 and then square the result. $(x+4)^2$

1. I start with x, take away 5, double the result and then divide by 3.
2. I start with x, multiply by 4 and then subtract t.
3. I start with x, add y and then double the result.
4. I start with a, double it and then add b.

5. I start with n, square it and then subtract n.

6. I start with x, add 2 and then square the result.

7. A brick weighs ‘x’ kg. How much do 6 bricks weigh? How much do ‘n’ bricks weigh?

8. A man shares ‘x’ euros between ‘n’ children. How much does each child receive?

4. Write an equation for the following statements:

a. If you multiply a number by 3 and then add 4, the answer is 13

b. The addition of a number and its consecutive is 81.

c. If you multiply the number by 2 and then subtract 5, the answer is 4.

d. If you subtract 11 from the number and then triple the result, the answer is 20.

Student A

Read the equation or number to partner.

1. $5y + 3x + 2y + 4x$
2. $\frac{5}{8}$
3. 6,800
4. $(x + 2) + (2x + 7) - (3x + 4)$
5. $\frac{2}{3}$
6. 38,400
7. 3.5%
8. 18,500,000

Write the equation or number that your partner reads to you.

1.
2.
3.
4.
5.
6.
7.
8.

Student B

Read the equation or number to partner.

1. $(2x + 3) - (5x - 7) - (x - 1)$
2. $\frac{7}{8}$
3. 19.7%
4. 206
5. 3,840,000
6. $(x + 2x) - (2x - x) + (3x + 5x)$
7. 2,400
8. 4,506

Write the equation or number that your partner reads to you.

1.
2.
3.
4.
5.
6.
7.
8.