**Algebra – GCSE Substitution Questions – Grade C**

**1.** (a) Simplify 2*x* – *x* + 1.

Answer ......................................

(1)

(b) Find the value of 3*x* + *y*2 when *x* = –2 and *y* = 3.

....................................................................................................................................

....................................................................................................................................

Answer ......................................

(2)

**2.** (a) Simplify 3*n* – *n* + 5.

Answer .........................................................

(1)

(b) Work out the value of 2*x* + *y*3 when *x* = –3 and *y* = 2.

....................................................................................................................................

....................................................................................................................................

Answer .........................................................

(2)

**3.** (a) Simplify 2*p* + 3*q* – *p* – 4*q*

Answer ..........................................................

(2)

(b) Find the value of 3*x* + 4*y* when *x* = 6 and *y* = –3

.....................................................................................................................................

Answer ..........................................................

(2)

**4.** (a) Simplify 5*x* + 3*y* – 2*x* + 4*y*

.......................................................................................................................................

Answer ...................................................................

(2)

(b) Find the value of 5*p* + 2*q* when *p* = 4 and *q* = – 7

.......................................................................................................................................

Answer ...................................................................

(2)

(c) Find the value of *u*2 – *v*2 when *u* = 5 and *v* = 3

.......................................................................................................................................

Answer ...................................................................

(2)

**5.** A formula is given as *V* = 4*h* + *p*2

Find the value of *V* when *h* = 0.5 and *p* = 8

�����������������������������������..

�����������������������������������..

(2)

**6.** Using the formula

*v* = 3*u* + 5*t*

calculate the value of *v* when *u* *=* 5.1 and *t* = 27.3

...............................................................................................................................................

...............................................................................................................................................

(2)

**7.** (a) Find the value of 3*x* + 4*y* when *x* = 6 and *y* = –3

......................................................................................................................................

Answer ......................................................

(2)

(b) Sam buys *x* packets of sweets.  
Each packet of sweets costs 22 pence.  
Sam pays with a �5 note.  
Write down an expression for the change, in pence, Sam should receive.

......................................................................................................................................

......................................................................................................................................

Answer ............................................ pence

(2)

**8.** (a) Find the value of *a*3 when *a* = 4

...............�����������������������������..

Answer ............................................

(1)

(b) Find the value of 5*x* + 3*y* when *x* = –2 and *y* = 4

...............�����������������������������..

Answer ............................................

(2)

(c) There are *p* seats in a standard class coach and *q* seats in a first class coach.

A train has 5 standard class coaches and 2 first class coaches.

Write down an expression in terms of *p* and *q* for the number of seats in the train.

...............�����������������������������..

Answer ............................................

(2)