



KEC

# K Education Centre

## GCSE Higher Mathematics

Algebraic expressions - (Expanding and Factorising)

Assignment Questions

**Q1: Expand the following :**

a)  $(z+6)(z+5)$

b)  $(x-6)(x-10)$

**Q2 : Factorise :**

a)  $20ab^2 + 40ab^6 + a^3b^3$

b)  $10xy^3 + 20x^2y^4 + 30xy$

**Q3 :** A triangle has a base of  $(2y+5)$  and a perpendicular  $(4y+8)$ . Find the area of the triangle.

**Q4 : Expand and simplify the following :**

a )  $4b(4b + b^2) - 6b^2(2 - 4b)$

b)  $(y-10)(y-20)$

**Q5:** A rectangle with sides 6 and  $3y+2$  has a small rectangle with sides 3 and  $y-1$  cut off it. Work out the remaining area.

**Q6 : Expand  $(y+10)(y+6)$  and use this to find the value of**

a)  $110 \times 106$  b)  $10.01 \times 6.01$

**Q7 : Expand**

a)  $(mn +yz)(mn - yz)$

b)  $(2-4p)(3-5p)$

**Q8: Expand  $(3a+b)(3a-b)$  use this to find the value of  $33 \times 27$**