

## (2) Expanding Brackets

### WORKING AT D/E

(1) Expand and simplify  $(A + B)^2$ .

(2) Without further expansion, use your answer to question (1) to find  $(A - B)^2$

(3) Expand and simplify  $(x + y)(2x - y + 3)$

### WORKING AT B/C

(1) Expand and simplify  $-2x(3 - x)^2$

(2) Expand and simplify  $(3x + 1)^2(3x - 1)$

(3) Find the values of  $A$ ,  $B$  and  $C$  such that  
 $(2x + y)^3 \equiv Ax^3 + Bx^2y + Cxy^2 + y^3$

### WORKING AT A\*/A

(1) Expand and simplify  $(x^{\frac{2}{3}} + x^{0.5})^2$

(2) Find the terms independent of  $x$  in the expansion of:  $(x + y)(4x - y)(y - \frac{3}{x})$

(3) The two shorter sides of a right-angled triangle are  $(x + 1)^{\frac{1}{2}}$  and  $(x - 4)$ . Find a simplified expression for the length of the remaining side in the form  $(Ax^2 + Bx + C)^N$  where  $A$ ,  $B$  and  $C$  are integers and  $N$  is a simplified rational fraction.