Worksheet A: Completing the square (squares/algebra)

Part 1:
1) Expand $(x+3)^2$

2) Expand $(x+10)^2$

3) Expand $(x+8)^2$

4) Expand $(x-8)^2$

Part 2:
1) Given

$$x^2+10x+\quad=$$

What number must be hidden for the expression to be a perfect square? What are the dimensions of the square?

2) Given

$$x^2+8x+\quad=$$

What number must be hidden for the expression to be a perfect square? What are the dimensions of the square?

3) Given

$$x^2-8x+\quad=$$

What number must be hidden for the expression to be a perfect square? What are the dimensions of the square?

Part 3:
1) Find the values of *A* and *B* for which $x^2-12x+5\equiv(x+A)^2+B$

2) Find the values of *A*, *B* and *C* for which $5+12x-x^2\equiv A(x+B)^2+C$

3) Find the values of *A*, *B* and *C* for which $2x^2-12x+5\equiv A(x+B)^2+C$

4) Find the values of *A*, *B* and *C* for which $4x^2-12x+5\equiv A(x+B)^2+C$