Maths with Melissa

Worksheet: Double Brackets Squared

Expand and simplify each of the following expressions. Show all your working for full marks

- 1. Expand and simplify: $(x + 3)^2$
- 2. Expand and simplify: $(2x 5)^2$
- 3. Expand and simplify: $(x + 4y)^2$
- 4. Expand and simplify: $(3a 2b)^2$
- 5. Expand and simplify: $(x 7)^2$
- 6. Expand and simplify: $(5m + 2n)^2$
- 7. Expand and simplify: $(2x + 3y)^2$
- 8. Expand and simplify: $(4p 6q)^2$
- 9. Expand and simplify: $(x + y + 2)^2$
- 10. Expand and simplify: $(x 2y + 5)^2$

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Answer Key

1.
$$(x+3)^2 = x^2 + 6x + 9$$

2.
$$(2x-5)^2 = 4x^2 - 20x + 25$$

3.
$$(x+4y)^2 = x^2 + 8xy + 16y^2$$

4.
$$(3a-2b)^2 = 9a^2 - 12ab + 4b^2$$

5.
$$(x-7)^2 = x^2 - 14x + 49$$

6.
$$(5m + 2n)^2 = 25m^2 + 20mn + 4n^2$$

7.
$$(2x + 3y)^2 = 4x^2 + 12xy + 9y^2$$

8.
$$(4p - 6q)^2 = 16p^2 - 48pq + 36q^2$$

9.
$$(x + y + 2)^2 = x^2 + 2xy + 4x + y^2 + 4y + 4$$

10.
$$(x - 2y + 5)^2 = x^2 - 4xy + 10x + 4y^2 - 20y + 25$$