Solving Binomial Products Guided Lesson Explanation

For all of these problems we multiply a portion of the first parenthesis separately into the second.

Explanation #1:
$(b + 6)(-2b + 3a + 4)$

Step 1) $(b) (-2b) = -2b^2$
Step 2) $(b) (3a) = 3ab$
Step 3) $(b) (4) = 4b$

Step 4) $(6) (-2b) = -12b$
Step 5) $(6) (3a) = 18a$
Step 6) $(6) (4) = 24$

Putting it together:

$-2b^2 + 3ab + 4b – 12b + 18a + 24$
Combine like terms

Final answer $=-2b^2 + 3ab - 8b + 18a$

Explanation #2:
$(6t – 3)^2 = (6t – 3) (6t – 3)$

Step 1) $(6t) (6t) = 36t^2$
Step 2) $(6t) (-3) = -18t$

Step 3) $(-3) (6t) = -18t$
Step 4) $(-3) (-3) = 9$

Putting it together:

$36t^2 -18t -18t + 9$
Combine like terms

Final answer $= 36t^2 - 36t + 9$

Explanation #2:
$(3x^2) (2x^2 + 3x -2)$
Use the distributive method.
Multiply $3x^2$ times each term.

Step 1) $(3x^2) (2x^2) = 6x^4$
Step 2) $(3x^2) (3x) = 9x^3$
Step 3) $(3x^2) (-2) = -6x^2$

Putting it together:

$6x^4 + 9x^3 -6x^2$