

Name: _____

Date: _____

Draw a box: one factor across the top, one down the side. Multiply into each cell, then add the cells. Last two are challenge problems

1. Use a 2×2 box for $(x + 3)(x + 4)$.
List the four cells.

show your work

2. Box $(x + 5)(x + 2)$: sum of cells?

show your work

3. Box $(x - 3)(x + 6)$: watch the signs
in the cells.

show your work

4. Box $(2x + 1)(x + 3)$:

show your work

5. Box $(3x - 2)(x - 4)$:

show your work

6. Box $(x + 4)^2$:

show your work

7. Why does the area model ALWAYS work?

show your work

8. Box $(2x - 5)(2x + 5)$: what happens to the middle cells?

show your work

9. Use a 2×3 box for $(x + 2)(x^2 + 3x + 1)$. ★ CHALLENGE

show your work

10. An area model has cells x^2 , $5x$, $3x$, 15 . What were the factors, and what is the total area when $x = 4$? ★ CHALLENGE

show your work