

Multiplying Monomial by Polynomial and multiplying Binomials Thin-Slicing Sequence

Review Distributive Property:

What if we had $2(3x+4)$? What would we do here? What operation is this?

What about $(x^2)(x^3)$?

Thin-Slicing

- | | |
|--|----------------------------|
| 1. $3(4x^2 + 6x + 5)$ | $12x^2 + 18x + 15$ |
| 2. $-3(4x^2 - 6x + 5)$ | $-12x^2 + 18x - 15$ |
| 3. $3x(4x^2 - 6x - 5)$ | $12x^3 - 18x^2 - 15x$ |
| 4. $7x^2(3x^2 - 4x + 2)$ | $21x^4 - 28x^3 + 14x^2$ |
| 5. Area of rectangle:
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">$7x^2$</div> <div style="width: 180px; height: 40px; background-color: #4a7ebb; border: 1px solid black;"></div> </div> $6x^3 - 4x + 1$ | $42x^5 - 28x^3 + 7x^2$ |
| 6. $w(3w + 2) + 5w$ | $w^2 + 7w$ |
| 7. $2x(3x^2 + 4) - 3x^3$ | $3x^3 + 8x$ |
| 8. $-4c(5c - 3) - 2(c^2 + 7c - 4)$ | $-22c^2 - 2c + 8$ |
| 9. Solve for m
$6(m - 2) + 14 = 3(m + 2) - 10$ | $m = -2$ |
| 10. Solve for x
$8(-3x + 1) = -4(x - 3) - 9$ | $x = \frac{1}{4}$ |
| 11. Simplify:
$-\frac{2}{3}n^2(-9n^2 + 3n + 6)$ | $6n^4 - n^3 - 4n^2$ |
| 12. $(x + 1)(x + 2)$ | $x^2 + 3x + 2$ |
| 13. $(x - 1)(x + 2)$ | $x^2 - x - 2$ |
| 14. $(x - 2)(x - 3)$ | $x^2 - 5x + 6$ |
| 15. $(3x - 7)(4x + 5)$ | $12x^2 - 13x - 35$ |
| 16. $(3x + 2)(8x^2 + 8x + 2)$ | $24x^3 + 40x^2 + 22x + 4$ |
| 17. $(4x - 3)(6x^2 - 3x - 6)$ | $24x^3 - 30x^2 - 15x + 18$ |