

# F O I L

## Introduction to Algebra

- $(x + 2)(x + 7)$ .
- $(x + 1)(x + 6)$ .
- $(x - 3)(x - 4)$ .
- $(x - 5)(x - 2)$ .
- $(x + 5)(x - 2)$ .
- $(x + 7)(x - 3)$ .
- $(x - 7)(x + 6)$ .
- $(x - 6)(x + 5)$ .
- $(x - 11)(x - 2)$ .
- $(x - 13)(x - 1)$ .
- $(y + 7)(y - 9)$ .
- $(x + 3)(x + 17)$ .
- $(y + 2)(y - 15)$ .
- $(y + 2)(y + 16)$ .
- $(a^2 + 7)(a^2 - 5)$ .
- $(a - 9)(a + 9)$ .
- $(m^2 - 2)(m^2 - 16)$ .
- $(b^3 + 12)(b^3 - 10)$ .
- $(x - \frac{1}{2})(x - \frac{1}{4})$ .
- $(y + \frac{1}{3})(y + \frac{1}{6})$ .
- $(m + \frac{2}{3})(m - \frac{1}{3})$ .
- $(a - \frac{2}{5})(a + \frac{3}{5})$ .
- $(x - \frac{2}{3})(x - \frac{1}{2})$ .
- $(y + \frac{3}{4})(y + \frac{1}{5})$ .
- $(3 - x)(7 - x)$ .
- $(5 - x)(3 - x)$ .
- $(6 - x)(7 + x)$ .
- $(11 - x)(3 + x)$ .
- $(x - 3)(x + 3)$ .
- $(y + 5)(y - 5)$ .
- Find a number which, being multiplied by 6, and having 15 added to the product, will equal 141.
- Mr. Allen has 3 more cows than his neighbor. Three times his number of cows will equal four times his neighbor's. How many has Mr. Allen?

# F O I L solutions

- $x^2 + 9x + 14.$
- $x^2 + 7x + 6.$
- $x^2 - 7x + 12.$
- $x^2 - 7x + 10.$
- $x^2 + 3x - 10.$
- $x^2 + 4x - 21.$
- $x^2 - x - 42.$
- $x^2 - x - 30.$
- $x^2 - 13x + 22.$
- $x^2 - 14x + 13.$
- $y^2 - 2y - 63.$
- $x^2 + 20x + 51.$
- $y^2 - 13y - 30.$
- $y^2 + 18y + 32.$
- $a^4 + 2a^2 - 35.$
- $a^2 - 81.$
- $m^4 - 18m^2 + 32.$
- $b^6 + 2b^3 - 120.$
- $x^2 - \frac{3}{4}x + \frac{1}{8}.$
- $y^2 + \frac{1}{2}y + \frac{1}{18}.$
- $m^2 + \frac{1}{3}m - \frac{2}{9}.$
- $a^2 + \frac{1}{5}a - \frac{6}{25}.$
- $x^2 - \frac{7}{6}x + \frac{1}{3}.$
- $y^2 + \frac{19}{20}y + \frac{3}{20}.$
- $21 - 10x + x^2.$
- $15 - 8x + x^2.$
- $42 - x - x^2.$
- $33 + 8x - x^2.$
- $x^2 - 9.$
- $y^2 - 25.$
- 21.
- 12 cows.

Problems from the book:

A First Book in Algebra  
Wallace C. Boyd, A.M.  
1895

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