

Expanding Polynomials

Oct 31/16

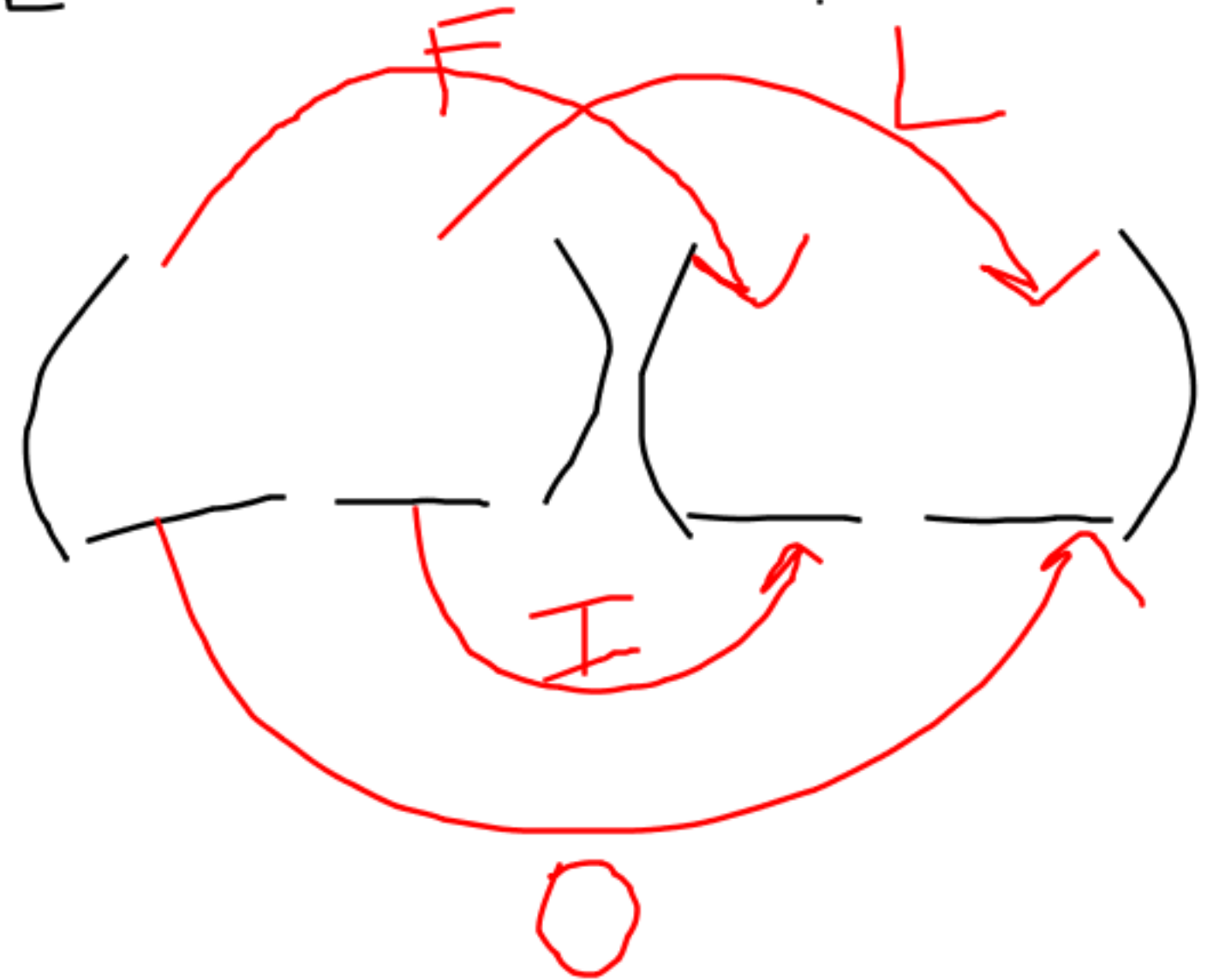
What does F.O.I.L. stand for?

F first

O outside

I inside

L last



Examples

① FOIL

- x + = -

1) $(5x^2 - 1)(3x^2 + 3)$

$$= 15x^2 + 15x - 3x - 3$$

② combine like terms

$$= 15x^2 + 12x - 3$$

③ descending order

$$12x + 15x^2 - 3$$

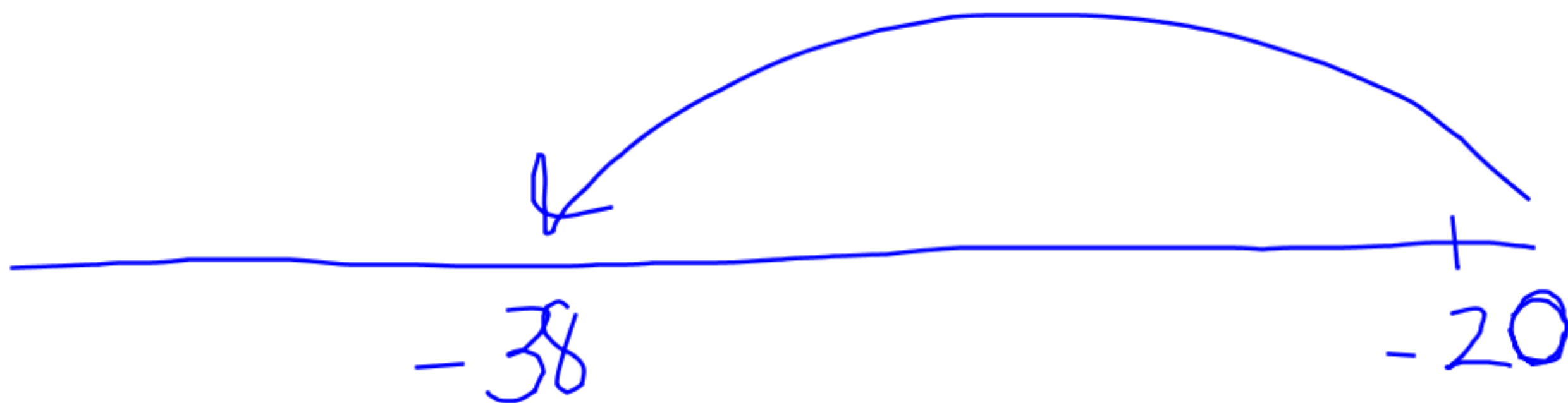


$$b) (5x' - 6)(3x' - 4)$$

FOIL

$-x- = +$

$$= 15x^2 - 20x - 18x + 24$$



$$= 15x^2 - 38x + 24$$

First
Second
Third
Fourth
Fifth
Sixth

x - y -
x -
y -
x -
y -
y - #

$$21) -k'(7+8k') + k(k-6)$$

$$= \boxed{-7k} - 8k^2 + k^2 \boxed{-6k}$$

$$= -13k - 7k^2$$

$$= -7k^2 - 13k$$

10 1st

2 2nd

0 3rd