

PROBLEM SET – Distributive Property Preview

Type	Problem	General
Regular	$(x + 8)(x - 15)$	$(x + b)(x + c)$
Repeated Binomial	$(x - 7)^2$	$(x + b)^2$
Slightly Repeated Binomial (Difference of Perfect Squares)	$(x - 8)(x + 8)$	$(x + b)(x - b)$
Leading Coefficient Greater Than One	$(2x + 7)(x - 5)$ $(3x - 8)^2$ $(4x - 6)(4x + 6)$	$(ax + b)(cx + d)$ $(ax + b)^2$ $(ax + b)(ax - b)$

Challenge:

Use the distributive property on each

$$(x + 1)^2$$

$$(x + 1)^3$$

$$(x + 1)^4$$

Use any patterns or logic from above to find the following:

$$(x + 1)^{10}$$