$\qquad$
A: Squaring a Binomial
Ex. 1 Expand and simplify. (look for a pattern)
a) $(x+3)^{2}$
b) $(x+10)^{2}$
c) $(x-6)^{2}$
d) $(x-4)^{2}$
e) $(2 x+5)^{2}$
f) $(3 x-1)^{2}$
g) $(2 x-5 y)^{2}$
h) $(4 x+7 y)^{2}$

Summary:
Extra practice: $(7 c-2 d)^{2}$

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(a+b)^{2}=
$$

The resulting product is called a:

B: The Product of a Sum and a Difference
Ex. 2 Expand and simplify. (look for a pattern)
a) $(x+3)(x-3)$
b) $(y-5)(y+5)$
c) $(2 x+3)(2 x-3)$
d) $(3 x+5 y)(3 x-5 y)$
i) Describe the original binomials.
ii) How can we quickly get the first term of the result?
iii) How can we quickly get the last term of the result?
iv) What happened to the middle term?

Summary:
Extra practice: $(8 c+11 d)(8 c-11 d)$

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(a+b)(a-b)
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=
$$

The resulting product is called a:

Today's practice: pp. 225-227 \#3ad, 4ad, 5ad, 6ad, $8\left(A=\pi r^{2}\right)$,
10 (set up a LS and RS chart for 10c), 12, 19d
Enrichment: pp. 226-227 \#13, 14ab, 16

