

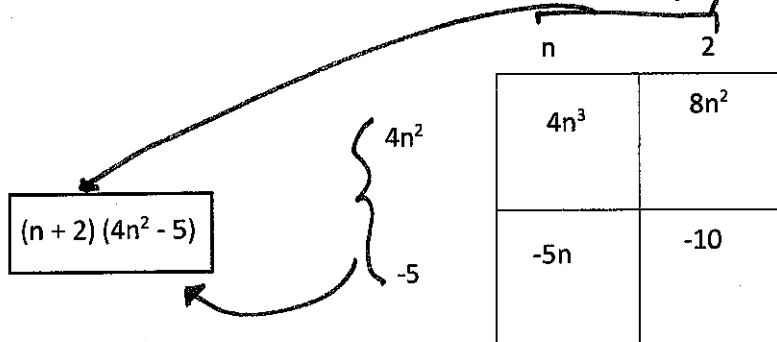
Notes 9-8

Factoring Four Term Polynomials

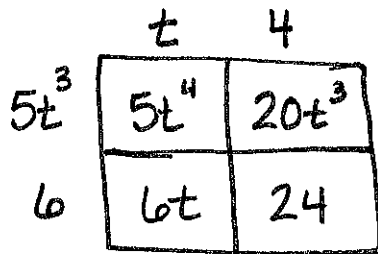
Ex. 1:

a) Factor $4n^3 + 8n^2 - 5n - 10$

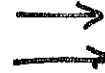
*Put all four terms in the box and factor out the GCF (by rows and columns)



b) Factor $5t^4 + 20t^3 + 6t + 24$



* fill row by row



$$(5t^3 + 6)(t + 4)$$

Ex. 2:

a) Factor $12p^4 + 10p^3 - 36p^2 - 30p$

**Factor out the GCF first

$$2p(6p^3 + 5p^2 - 18p - 15)$$

	6p	5
p^2	$6p^3$	$5p^2$
-3	$-18p$	-15

$$2p(6p + 5)(p^2 - 3)$$

b) Factor $45m^4 - 9m^3 + 30m^2 - 6m$

$$3m(15m^3 - 3m^2 + 10m - 2)$$

	5m	-1
$3m^2$	$15m^3$	$-3m^2$
2	$10m$	-2

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