Homework

FMT Text page 61 (photocopy) #3-5

3. a) $2x(a+b)+y(a+b)=(a+b)(2x+y)$

b) $3m(x-y)-k(x-y)=(x-y)(3m-k)$

Factor By Grouping - **sometimes there is no GCF amongst all of the terms in the polynomial.**

- **as a result, "pairing" certain terms together and removing a common factor may lead to the polynomial being factorable.**

- **usually done when polynomial has FOUR terms.**

EXAMPLES...

1) $10x^2 - 5xy - 6x + 3y$

$5x(2x-y)-3(2x-y)$

$(2x-y)(5x-3)$

2) $3mx - n + m - 3nx$

$3mx-3nx-n+m$

$3x(m-n)+1(m-n)$

$(m-n)(3x+1)$

Extra practice

Try…

$8r^3 - 64r^2 + r - 8$ $= 8r^2(r-8) + 1(r-8)$

$(r-8)(8r^2+1)$

$49x^3 - 35x^2 + 56x - 40$

$7x^2(7x-5) + 8(7x-5)$

$(7x-5)(7x^2+8)$

Attachments

Factoring By Grouping.pdf