Homework

FMT Text page 61 (photocopy) #3-5

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

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

Oct 13-8:39 AM

<u>Factor By Grouping</u> - 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) $3mx - n + m - 3nx$

$3mx-3nx+m-n$

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

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

Oct 13-11:09 AM

$105x^3 + 175x^2 - 75x - 125$

$5(21x^3 + 35x^2 - 15x - 25)$

$5[7x^2(3x+5) - 5(3x+5)]$

$5(3x+5)(7x^2-5)$

Oct 7-10:16 AM

Extra practice

Try…

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

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

$49x^3 - 35x^2 + 56x - 40 = 7x^2(7x-5) + 8(7x-5)$

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

Oct 13-11:13 AM

Attachments

Factoring By Grouping.pdf