19.9.2016

Practice

Expand $(x+3)(x+5)$

First

Outside

Inside

Last

$x^2 + 5x + 3x + 15$

$= x^2 + 8x + 15$

$(x+4)(x+2)$

$x^2 + 2x + 4x + 8$

$x^2 + 6x + 8$

trinomial

Sep 19-8:59 AM

Factor $x^2 + 6x + 8$

$(x+2)(x+4)$

Check: go to previous Q

$x^2 + 8x + 15$

$(x+3)(x+5)$

Find 2 numbers that multiply to give +8 and add together to give +6

Sep 19-9:09 AM

Factor a) $x^2 - 10x + 24$

$(x-6)(x-4)$

$\_x\_ = +24$.

$\_+\_ = -10$

b) $x^2 + 5x - 36$

$(x+9)(x-4)$

$\_x\_ = -36$

$\_+\_ = +5$

c) $4x^2 + 4x - 48$

$4(x^2 + x - 12)$

$4(x+4)(x-3)$

$\_x\_ = -12$

$\_+\_ = +1$

Sep 19-9:16 AM

p. 166 # 11 a, c, e, g

14 a, c, e, g

11 g) $q^2 + 7q + 6$

$6 \cdot 1$

$(q+6)(q+1)$

Sep 19-9:28 AM

EXAMPLES:

Factor a) $2m+4$

$2(m+2)$

b) $6x^2+3x$

$3x(2x+1)$

c) $6x^2y+3xy+5x^3y^3$

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

OR

$xy(6x+3+5x^2y)$

Sep 19-9:43 AM

$3x^2+2x-5$ ✓ (-15)

$3x^2+5x-3x-5$

$x(3x+5)-1(3x+5)$

$(3x+5)(x-1)$

$a \neq 1$

$-3 \times +5 = -15$

$-3 + +5 = +2$

Sep 19-10:11 AM

$5x^2 - 3x - 2$ (−10)

$-5 \times +2 = -10$

$-5 + +2 = -3$

$5x^2 - 5x + 2x - 2$

common? ✓ common ✓

$5x(x-1)\,2(x-1)$

$(x-1)(5x+2)$

Sep 19-10:36 AM

#3 $2w^2 + w - 6$

$-3 \times 4 = -12$

$-3 + 4 = +1$

12

$2w^2 + 4w - 3w - 6$

$2w(w+2) - 3(w+2)$

$(w+2)(2w-3)$

Sep 19-10:40 AM

$24x^2 + 30x - 54$

$6(4x^2 + 5x - 9)$

$-4 \times 9 = -36$

$-4 + 9 = +5$

$4x^2 - 4x + 9x - 9$

$4x(x-1)\ 9(x-1)$

$6(4x+9)(x-1)$

Sep 19-10:46 AM

$-2 + 8 = +6$

$-2 \times 8 = -16$

$-7 \times +3 = -21$

$-7 + +3 = -4$

$-9 \times -2 = +18$

$-9 + -2 = -11$

Sep 19-10:28 AM