8.2 Binomial Products Continued

FOIL

24. $(x+2)(x-5)$

$= x^2 - 5x + 2x - 10$

$= x^2 - 3x - 10$

26. $(a+9)(a-5)$

$= a^2 - 5a + 9a - 45$

$= a^2 + 4a - 45$

31. $(x+5)(2x+1)$

$= 2x^2 + x + 10x + 5$

$= 2x^2 + 11x + 5$

33. $(x-1)(2x-1)$

$= 2x^2 - x - 2x + 1$

$= 2x^2 - 3x + 1$

44. $(x-1.2)(x+3)$

$= x^2 + 3x - 1.2x - 3.6$

$= x^2 + 1.8x - 3.6$

47. $2(x+3)(x+5)$

$= 2(x^2 + 5x + 3x + 15)$

$= 2(x^2 + 8x + 15)$

$= 2x^2 + 16x + 30$

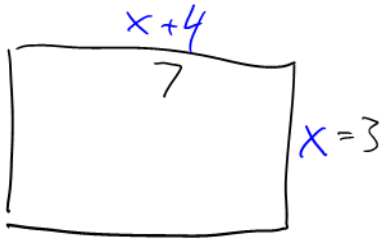
$2 \times 3 \times 5$

BEDMAS

↳ brackets

You do: 37, 41, 46, 51

55 a)



$x = 3$

$A = lw$

Method 1

$A = 3 \times 7$

$A = 21 cm^2$

Method 2

$A = x(x+4)$

$A = x^2 + 4x$

$A = (3)^2 + 4(3)$

$A = 9 + 12$

$A = 21 cm^2$

58. $1000(1+r)^2$

a) $1000\underbrace{(1+r)(1+r)}$

$= 1000(1 + r + r + r^2)$

$= 1000(1 + 2r + r^2)$

$= 1000 + 2000r + 1000r^2$

b) $r = 0.08$

$1000(1+0.08)^2$

$= 1000(1.08)^2$

$= 1000(1.1664)$

$= \$1166.40$

13

20

2 10

2 5 $= 2^2 \times 5$

8.4 Factoring Trinomials $x^2 + bx + c$

5.

	Sum $m+n$	Product mn	m	n
a)	7	12	3	4
b)	8	15	3	5
c)	13	12	1	12
d)	18	77	7	11

$+1, +2$

$-2, -6$

$-3, -4$

$-1, -15$

$-3, -5$

$1, 77$

$7, 11$

e)	-8	15	-3	-5
f)	-7	12	-3	-4
g)	8	-20	-2	10
h)	-5	-24	3	-8

$-1, 20$
$-2, 10$
$-4, 5$

$1, -24$
$2, -12$
$3, -8$
$4, -6$

7. $x^2 + 7x + 10$ (×) 10, (+) 7 → $1, 10$; $2, 5$

$= (x+2)(x+5)$

Check: $x^2 + 5x + 2x + 10$

$x^2 + 7x + 10$

8. $y^2 - 8y + 15$ (×) 15, (+) -8 → $-1, -15$; $-3, -5$

$= (y-3)(y-5)$

HW: pg 280 # 23 - 55b

pg 283 # 6 - 15