

Test A
Solutions

1.) $(x+3)(x+2)$

$$x^2 + -2x + 3x + -6$$

$$x^2 + x + -6$$

2.) $(x+7)(x+7)$

$$x^2 + 7x + 7x + 49$$

$$x^2 + 14x + 49$$

3.) $(x+1)(x^2 + 3y + 7)$

$$x^3 + 3yx + \cancel{-7} + -x^2 + -3y + \cancel{-7}$$

$$x^3 + 3yx + -14 + -x^2 + -3y$$

4.) $(xy + 2x^2)(xy + 2x^2)$

$$x^2y^2 + -2x^3y + -2x^3y + 4x^4$$

$$x^2y^2 + -4x^3y + 4x^4$$

5.)

$$(x+y)(a+b)$$

$$xa + xb + ya + yb$$

I multiplied
the entire length
 $(x+y)$ times the
entire width $(a+b)$

$$(a \cdot x) + (a \cdot y) + b(x+y)$$

$$a \cdot x + ay + bx + by$$

I multiplied the three
pieces separately. In the
end, I got the same answer.