Overall review

Section A: Expanding Brackets

1. $x(2x-3)$ — $2x^2-3x$
2. $(x+1)(x-4)$ — $x^2-4x+x-4$ x^2-3x-4
3. $(2x+1)(2x-1)$ — $4x^2-2x+2x-1$ $4x^2-1$
4. $(3x-1)(4x-3)$ — $12x^2-9x-4x+3$ $12x^2-13x+3$

Section B: Common Factor

1. x^2-3x — $x(x-3)$
2. $2x^2-6xy$ — $2x(x-3y)$
3. $15a^2b+9ab^2$ — $3ab(5a+3b)$
4. $5a^2-20a$ — $5a(a-4)$

Section D: Coefficient of x^2 is 1

1. x^2+5x+6 — $(x+2)(x+3)$
2. x^2-4x+3 — $(x-3)(x-1)$
3. $x^2-3x-10$ — $(x-5)(x+2)$
4. $x^2+2x-24$ — $(x+6)(x-4)$

*****Section E: Coefficient of x^2 is not 1 OPTIONAL *(Challenge)***

1. $2x^2-x-1$ — $(2x+1)(x-1)$
2. $3x^2+8x+4$ — $(3x+2)(x+2)$

3. $3x^2-10x+8$ — $(3x-4)(x-2)$
4. $6x^2+17x+12$ — $(2x+3)(3x+4)$

Section F: a mixture

1. $x^2-10x-24$ — $(x-12)(x+2)$
2. $x^2+8x+15$ — $(x+3)(x+5)$
8. $x^2+5x-24$ — $(x+8)(x-3)$
9. $7x^2y^3-21xy$ — $7xy(xy^2-3)$
10. x^2+7x+6 — $(x+6)(x+1)$
11. $(x-5)(x-2)$ — $x^2-5x-2x+10$ $x^2-7x+10$
12. $3+2x-x^2$ — $-(x^2-2x-3)$ $-(x-3)(x+1)$
13. $15x^2+3x$ — $3x(5x+1)$
14. $3x^2+6x-24$ — $3(x^2+2x-8)$ $3(x+4)(x-2)$
15. $(2x+y)(3x+4y)$ — $6x^2+8xy+3xy+4y^2$ $6x^2+11xy+4y^2$