

$$1) (x+1)(x+5) = x^2 + 5x + x + 5 = x^2 + 6x + 5$$

$$2) (a+6)(a+3) = a^2 + 3a + 6a + 18 = a^2 + 9a + 18$$

$$3) (x+2)(x+3) = x^2 + 3x + 2x + 6 = x^2 + 5x + 6$$

$$4) (a+b)(c+d) = ac + ad + bc + bd$$

$$5) (p+5)(p+q) = p^2 + pq + 5p + 5q$$

$$6) (2x+1)(3x+5) = 6x^2 + 10x + 3x + 5 = 6x^2 + 13x + 5$$

$$7) (5a+p)(a+3) = 5a^2 + 15a + ap + 3p$$

$$8) (7t+6)(5t+8) = 35t^2 + 56t + 30t + 48 = 35t^2 + 86t + 48$$

$$9) (2a+3)(3a+4) = 6a^2 + 8a + 9a + 12 = 6a^2 + 17a + 12$$

$$10) (11x+3)(9x+2) = 99x^2 + 22x + 27x + 6 = 99x^2 + 49x + 6$$

$$11) \left(\frac{1}{2}x+1\right)(6x+5) = 3x^2 + \frac{5}{2}x + 6x + 5 = 3x^2 + 8\frac{1}{2}x + 5 \quad (\text{of: } 3x^2 + 8,5x + 5)$$

$$12) \left(5a + \frac{1}{3}p\right)(a+3) = 5a^2 + 15a + \frac{1}{3}ap + p$$

$$13) \left(7t + \frac{1}{10}\right)\left(\frac{1}{5}t + 8\right) = \frac{7}{5}t^2 + 56t + \frac{1}{50}t + \frac{8}{10} = 1\frac{2}{5}t^2 + 56\frac{1}{50}t + \frac{4}{5}$$

$$14) \left(\frac{1}{2}a + \frac{2}{5}\right)(3a+4) = \frac{3}{2}a^2 + 2a + \frac{6}{5}a + \frac{8}{5} = 1\frac{1}{2}a^2 + 3\frac{1}{5}a + 1\frac{3}{5}$$

$$15) (10x+30)(90x+20) = 900x^2 + 200x + 2700x + 600 = 900x^2 + 2900x + 600$$

