

$$\textcircled{1} \quad 2(a+b) =$$

$$2a + 2b =$$

$$\textcircled{2} \quad b(a-1) =$$

$$ba - 1b =$$

$$ba - b =$$

$$\textcircled{3} \quad 2(L+W) =$$

$$2L + 2W =$$

$$\textcircled{4} \quad X(2 + CK) =$$

$$2X + CKX =$$

$$\textcircled{5} \quad X(a + c) =$$

$$aX + cX =$$

$$\textcircled{6} \quad (1 + XY)(1 - XY) =$$

$$1 - \cancel{1XY} + \cancel{1XY} - X^2Y^2 =$$

$$1 - X^2Y^2 =$$

$$\textcircled{7} \quad (X - 8Y)(X - 8Y) =$$

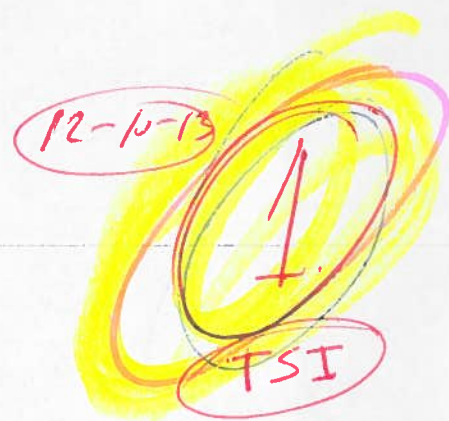
$$X^2 - 8XY - 8XY + 64Y^2 =$$

$$X^2 - 16XY + 64Y^2 =$$

$$\textcircled{8} \quad (4z + 7)(2z + 5) =$$

$$8z^2 + 20z + 14z + 35 =$$

$$8z^2 + 34z + 35 =$$



$$\begin{aligned} \textcircled{9} \quad (2x+1)(1-ax) &= \\ 2x - 2ax^2 + 1 - ax &= \\ 2x - 2ax^2 + 1 - ax &= \end{aligned}$$



$$\begin{aligned} \textcircled{10} \quad (x-y)(a+1) &= \\ ax + 1x - ya - 1y &= \\ ax + x - ay - y &= \end{aligned}$$

$$\begin{aligned} \textcircled{11} \quad (b+2)(b-8) &= \\ b^2 - 8b + 2b - 16 &= \\ b^2 - 6b - 16 &= \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad (5 + \frac{x}{2})(5 - \frac{x}{2}) &= \\ 25 - \frac{5x}{2} + \frac{5x}{2} - \frac{x^2}{4} &= \\ 25 - \frac{x^2}{4} &= \end{aligned}$$

$$\begin{aligned} \textcircled{13} \quad 3x(x-1)(x-2) &= \\ 3x(x^2 - 2x - 1x + 2) &= \\ 3x(x^2 - 3x + 2) &= \\ 3x^3 - 9x^2 + 6x &= \end{aligned}$$

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$$(b+c)(b-2c) =$$

$$b^2 - 2bc + bc - 2c^2 =$$

$$b^2 - 2bc + 1bc - 2c^2 =$$

$$b^2 - 1bc - 2c^2 =$$

$$b^2 - bc - 2c^2 =$$



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

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

$$x(x^2 - 1x - 2) =$$

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

$$x^3 - x^2 - 2x =$$

$$16 \quad \left(\frac{a}{2} + \frac{1}{3}\right)\left(\frac{a}{2} - \frac{1}{3}\right) =$$

$$\frac{a^2}{4} - \frac{1a}{6} + \frac{1a}{6} - \frac{1}{9} =$$

$$\frac{a^2}{4} - \frac{1}{9} =$$

$$17 \quad x(x-3) + 3(x+3) =$$

$$x^2 - 3x + 3x + 9 =$$

$$x^2 + 9 =$$

$$18 \quad x(x) + 2y(y) - 3 =$$

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

$$\begin{aligned} (19) \quad & 1(x+2) + 1(x) = \\ & 1x + 2 + 1x = \\ & 2x + 2 = \end{aligned}$$

$$\begin{aligned} (20) \quad & 1(x) + 1(x-2) = \\ & 1x + (x-2) = \\ & 2x - 2 = \end{aligned}$$

$$\begin{aligned} (21) \quad & 4(x+1) - 2(x+4) \\ & 4x + 4 - 2x - 8 = \\ & 2x - 4 = \end{aligned}$$

$$\begin{aligned} (22) \quad & 3(x) + 3(x-y) + 2x = \\ & 3x + 3x - 3y + 2x = \\ & 8x - 3y = \end{aligned}$$

$$\begin{aligned} (23) \quad & 1(y) + 1(x) = \\ & 1y + 1x = \\ & y + x = \end{aligned}$$

$$\begin{aligned} (24) \quad & 2x + 3(x-y) = \\ & 2x + 3x - 3y = \\ & 5x - 3y = \end{aligned}$$

$$\begin{aligned} (25) \quad & 1(x+2) + 1(x) = \\ & 1x + 2 + 1x = \\ & 2x + 2 = \end{aligned}$$



$$\begin{aligned} (26) \quad & 4x(x-2) - 3(2x-1) \\ & 4x^2 - 8x - 6x + 3 = \\ & 4x^2 - 14x + 3 = \end{aligned}$$

$$\begin{aligned} (27) \quad & (x-2)(x+3) = \\ & x^2 + 3x - 2x - 6 = \\ & x^2 + 1x - 6 = \\ & x^2 + x - 6 = \end{aligned}$$

$$\begin{aligned} (28) \quad & x(x-1) = \\ & x^2 - 1x = \\ & x^2 - x = \end{aligned}$$

$$\begin{aligned} (29) \quad & 2x - 3(x-4) = \\ & 2x - 3x + 12 = \\ & -1x + 12 = \\ & -x + 12 = \end{aligned}$$

$$\begin{aligned} (30) \quad & 2(x-6) = \\ & 2x - 12 = \end{aligned}$$

$$\begin{aligned} (31) \quad & 2(2x-7) = \\ & 4x - 14 = \end{aligned}$$

$$\begin{aligned} (32) \quad & x(a-1) = \\ & ax - 1x = \\ & ax - x = \end{aligned}$$



$$\begin{aligned} (33) \quad (X-8)(3X-2) &= \\ 3X^2 - 2X - 24X + 16 &= \\ 3X^2 - 26X + 16 &= \end{aligned}$$

$$\begin{aligned} (34) \quad (6Y-7)(2X+3) &= \\ 12XY + 18Y - 14X - 21 &= \end{aligned}$$

$$\begin{aligned} (35) \quad (6Y-7)(2X-3) &= \\ 12XY - 18Y - 14X + 21 &= \end{aligned}$$

$$\begin{aligned} (36) \quad 2(2X+4) &= \\ 4X+8 &= \end{aligned}$$

$$\begin{aligned} (37) \quad -2(6-X) &= \\ -12+2X &= \\ 2X-12 &= \end{aligned}$$

$$\begin{aligned} (38) \quad (3X-2)(4X+3) &= \\ 12X^2 + 9X - 8X - 6 &= \\ 12X^2 + 1X - 6 &= \\ 12X^2 + X - 6 &= \end{aligned}$$

$$\begin{aligned} (39) \quad (A+B)(A+2B) &= \\ A^2 + 2AB + AB + 2B^2 &= \\ A^2 + 2AB + 1AB + 2B^2 &= \\ A^2 + 3AB + 2B^2 &= \end{aligned}$$

$$\begin{aligned} (40) \quad (4z+7)(2z+5) &= \\ 8z^2 + 20z + 14z + 35 &= \\ 8z^2 + 34z + 35 &= \end{aligned}$$



$$\begin{aligned} (41) \quad (x-4)(x-4) &= \\ x^2 - 4x - 4x + 16 &= \\ x^2 - 8x + 16 &= \end{aligned}$$

$$\begin{aligned} (42) \quad (x-6)(x-6) &= \\ x^2 - 6x - 6x + 36 &= \\ x^2 - 12x + 36 &= \end{aligned}$$

$$\begin{aligned} (43) \quad (x-4)(x+2) &= \\ x^2 + 2x - 4x - 8 &= \\ x^2 - 2x - 8 &= \end{aligned}$$

$$\begin{aligned} (44) \quad (x-8)(x-8) &= \\ x^2 - 8x - 8x + 64 &= \\ x^2 - 16x + 64 &= \end{aligned}$$

$$\begin{aligned} (45) \quad (4x-3y)(4x-3y) &= \\ 16x^2 - 12xy - 12xy + 9y^2 &= \\ 16x^2 - 24xy + 9y^2 &= \end{aligned}$$

$$\begin{aligned} (46) \quad (2-xy)(2-xy) &= \\ 4 - 2xy - 2xy + x^2y^2 &= \\ 4 - 4xy + x^2y^2 &= \end{aligned}$$



$$\begin{aligned}
 (47) \quad & X(X-2) - 3X(X+2) = \\
 & X^2 - 2X - 3X^2 - 6X = \\
 & 1X^2 - 2X - 3X^2 - 6X = \\
 & -2X^2 - 8X =
 \end{aligned}$$



$$\begin{aligned}
 (48) \quad & X(X+2)(X+4) = \\
 & X(X^2 + 4X + 2X + 8) = \\
 & X(X^2 + 6X + 8) = \\
 & X^3 + 6X^2 + 8X =
 \end{aligned}$$

$$\begin{aligned}
 (49) \quad & 2(X+1)(X+2)(X-2) = \\
 & 2(X+1)(X^2 - 2X + 2X - 4) = \\
 & 2(X+1)(X^2 - 4) = \\
 & 2(X^3 - 4X + 1X^2 - 4) = \\
 & 2(X^3 + 1X^2 - 4X - 4) = \\
 & 2X^3 + 2X^2 - 8X - 8 =
 \end{aligned}$$

$$\begin{aligned}
 (50) \quad & (X+1)(X-2) = \\
 & X^2 - 2X + 1X - 2 = \\
 & X^2 - 1X - 2 = \\
 & X^2 - X - 2 =
 \end{aligned}$$

$$\begin{aligned} (51) \quad (5x+8y)(5x-8y) &= \\ 25x^2 - 40xy + 40xy - 64y^2 &= \\ 25x^2 - 64y^2 &= \end{aligned}$$

$$\begin{aligned} (52) \quad (x-2)(x-8) &= \\ x^2 - 8x - 2x + 16 &= \\ x^2 - 10x + 16 &= \end{aligned}$$

$$\begin{aligned} (53) \quad (x+3)(x-6) &= \\ x^2 - 6x + 3x - 18 &= \\ x^2 - 3x - 18 &= \end{aligned}$$

$$\begin{aligned} (54) \quad (x-2)(x+8) &= \\ x^2 + 8x - 2x - 16 &= \\ x^2 + 6x - 16 &= \end{aligned}$$

$$\begin{aligned} (55) \quad 2(x-3)(x+8) &= \\ 2(x^2 + 8x - 3x - 24) &= \\ 2(x^2 + 5x - 24) &= \\ 2x^2 + 10x - 48 &= \end{aligned}$$

$$\begin{aligned} (56) \quad (x+4)(x-10) &= \\ x^2 - 10x + 4x - 40 &= \\ x^2 - 6x - 40 &= \end{aligned}$$



$$\begin{aligned}
 (57) \quad & 2(x-2)(x+4) = \\
 & 2(x^2 + 4x - 2x - 8) = \\
 & 2(x^2 + 2x - 8) = \\
 & 2x^2 + 4x - 16 =
 \end{aligned}$$

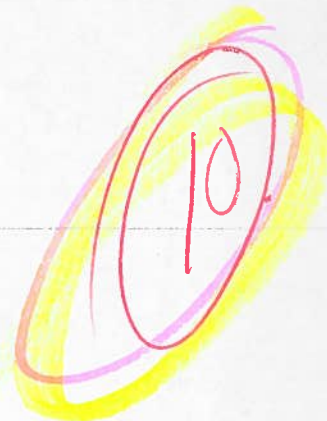
$$\begin{aligned}
 (58) \quad & (x-2)(x-3) = \\
 & x^2 - 3x - 2x + 6 = \\
 & x^2 - 5x + 6 =
 \end{aligned}$$

$$\begin{aligned}
 (59) \quad & 2(x-2)(x-3) = \\
 & 2(x^2 - 3x - 2x + 6) = \\
 & 2(x^2 - 5x + 6) = \\
 & 2x^2 - 10x + 12 =
 \end{aligned}$$

$$\begin{aligned}
 (60) \quad & 3(x-2) = \\
 & 3x - 6 =
 \end{aligned}$$

$$\begin{aligned}
 (61) \quad & (x+2)(x-2) = \\
 & x^2 - \cancel{2x} + \cancel{2x} - 4 = \\
 & x^2 - 4 =
 \end{aligned}$$

$$\begin{aligned}
 (62) \quad & x(x-5) - 4x(x-5) = \\
 & x^2 - 5x - 4x^2 + 20x = \\
 & 1x^2 - 5x - 4x^2 + 20x = \\
 & -3x^2 + 15x =
 \end{aligned}$$



$$\begin{aligned}
 (63) \quad & (x-2)x + (2-x)3x = \\
 & x^2 - 2x + 6x - 3x^2 = \\
 & 1x^2 - 2x + 6x - 3x^2 = \\
 & -2x^2 + 4x =
 \end{aligned}$$

$$\begin{aligned}
 (64) \quad & P(x-4)^2 = \\
 & P(x-4)(x-4) = \\
 & P(x^2 - 4x - 4x + 16) = \\
 & P(x^2 - 8x + 16) = \\
 & Px^2 - 8Px + 16P =
 \end{aligned}$$

$$\begin{aligned}
 (65) \quad & (x-1)(x-3) = \\
 & x^2 - 3x - 1x + 3 = \\
 & x^2 - 4x + 3 =
 \end{aligned}$$

$$\begin{aligned}
 (66) \quad & 2(x+4y)(x-4y) = \\
 & 2(x^2 - 4xy + 4xy - 16y^2) = \\
 & 2(x^2 - 16y^2) = \\
 & 2x^2 - 32y^2 =
 \end{aligned}$$

$$\begin{aligned}
 (67) \quad & 2(c+w) = \\
 & 2c + 2w =
 \end{aligned}$$

$$\begin{aligned}
 (68) \quad & B(x+c) = \\
 & Bx + Bc =
 \end{aligned}$$



$$\begin{aligned} (69) \quad & 3(x+3y)(x-3y) = \\ & 3(x^2 - 3x\cancel{y} + 3\cancel{x}y - 9y^2) = \\ & 3(x^2 - 9y^2) = \\ & 3x^2 - 27y^2 = \end{aligned}$$

$$\begin{aligned} (70) \quad & 4(x-4) = \\ & 4x - 16 = \end{aligned}$$

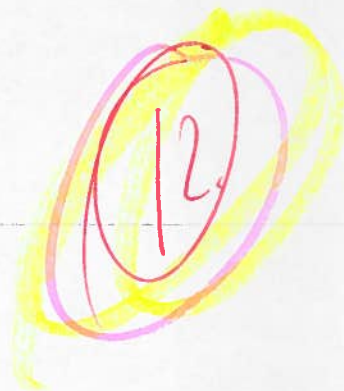
$$\begin{aligned} (71) \quad & x(x-2) = \\ & x^2 - 2x = \end{aligned}$$

$$\begin{aligned} (72) \quad & 2(x-2) - 3(3x) = \\ & 2x - 4 - 9x = \\ & -7x - 4 = \end{aligned}$$

$$\begin{aligned} (73) \quad & 2(2x+4) = \\ & 4x + 8 = \end{aligned}$$

$$\begin{aligned} (74) \quad & (m+4)(m-4) = \\ & m^2 - 4m + 4m - 16 = \\ & m^2 - 16 = \end{aligned}$$

$$\begin{aligned} (75) \quad & (m-4)(m+7) = \\ & m^2 + 7m - 4m - 28 = \\ & m^2 + 3m - 28 = \end{aligned}$$



$$\begin{aligned} (76) \quad (m+4)(m-7) &= \\ m^2 - 7m + 4m - 28 &= \\ m^2 - 3m - 28 &= \end{aligned}$$

$$\begin{aligned} (77) \quad (x+2)(x^2-3x+5) &= \\ x^3 - 3x^2 + 5x + 2x^2 - 6x + 10 &= \\ x^3 - 1x^2 - 1x + 10 &= \\ x^3 - x^2 - x + 10 &= \end{aligned}$$

$$\begin{aligned} (78) \quad 2(x-1)(x-1) &= \\ 2(x^2 - 1x - 1x + 1) &= \\ 2(x^2 - 2x + 1) &= \\ 2x^2 - 4x + 2 &= \end{aligned}$$

$$\begin{aligned} (79) \quad 3(x - (-3)) &= \\ 3(x + 3) &= \\ 3x + 9 &= \end{aligned}$$

$$\begin{aligned} (80) \quad (x-1)^2 &= \\ (x-1)(x-1) &= \\ x^2 - 1x - 1x + 1 &= \\ x^2 - 2x + 1 &= \end{aligned}$$



$$\textcircled{81} \quad (a+h)^2 =$$

$$(a+h)(a+h) =$$

$$a^2 + ah + ah + h^2 =$$

$$a^2 + 1ah + 1ah + h^2 =$$

$$a^2 + 2ah + h^2 =$$

$$\textcircled{82} \quad (x+h)^2 =$$

$$(x+h)(x+h) =$$

$$x^2 + hx + hx + h^2 =$$

$$x^2 + 1hx + 1hx + h^2 =$$

$$x^2 + 2hx + h^2 =$$

$$\textcircled{83} \quad 2(5x+8)+3 =$$

$$10x + 16 + 3 =$$

$$10x + 19 =$$

$$\textcircled{84} \quad (2x+3)^2 =$$

$$(2x+3)(2x+3) =$$

$$4x^2 + 6x + 6x + 9 =$$

$$4x^2 + 12x + 9 =$$

$$\textcircled{85} \quad (x-2)(x-6) =$$

$$x^2 - 6x - 2x + 12 =$$

$$x^2 - 8x + 12 =$$



$$\begin{aligned} 86) \quad & 4(x-2)+1= \\ & 4x-8+1= \\ & 4x-7= \end{aligned}$$

$$\begin{aligned} 87) \quad & (4x^2-3)(5x+4)= \\ & 20x^3+16x^2-15x-12= \end{aligned}$$

$$\begin{aligned} 88) \quad & 3(x-2)= \\ & 3x-6= \end{aligned}$$

$$\begin{aligned} 89) \quad & -3(x-2)= \\ & -3x+6= \end{aligned}$$

$$\begin{aligned} 90) \quad & (2x-5y)^2= \\ & (2x-5y)(2x-5y)= \\ & 4x^2-10xy-10xy+25y^2= \\ & 4x^2-20xy+25y^2= \end{aligned}$$

$$\begin{aligned} 91) \quad & (1-2x)^2= \\ & (1-2x)(1-2x)= \\ & 1-2x-2x+4x^2= \\ & 1-4x+4x^2= \end{aligned}$$

$$\begin{aligned} 92) \quad & (x+2)(x+8)= \\ & x^2+8x+2x+16= \\ & x^2+10x+16= \end{aligned}$$

15.

$$\begin{aligned} 93) \quad (x-2)(x-8) &= \\ x^2 - 8x - 2x + 16 &= \\ x^2 - 10x + 16 &= \end{aligned}$$



$$\begin{aligned} 94) \quad (x-2)(x+8) &= \\ x^2 + 8x - 2x - 16 &= \\ x^2 + 6x - 16 &= \end{aligned}$$

$$\begin{aligned} 95) \quad (x+2)(x-8) &= \\ x^2 - 8x + 2x - 16 &= \\ x^2 - 6x - 16 &= \end{aligned}$$

$$\begin{aligned} 96) \quad (x-2)(x-2) &= \\ x^2 - 2x - 2x + 4 &= \\ x^2 - 4x + 4 &= \end{aligned}$$

$$\begin{aligned} 97) \quad (x+2)(x-2) &= \\ x^2 - \cancel{2x} + \cancel{2x} - 4 &= \\ x^2 - 4 &= \end{aligned}$$

$$\begin{aligned} 98) \quad 2(x+5)(x-5) &= \\ 2(x^2 - \cancel{5x} + \cancel{5x} - 25) &= \\ 2(x^2 - 25) &= \\ 2x^2 - 50 &= \end{aligned}$$

$$\textcircled{99} \quad 4(2x-3) = \\ 8x - 12 =$$

$$\textcircled{100} \quad x(x+1) = \\ x^2 + 1x = \\ x^2 + x =$$

$$\textcircled{101} \quad -16x(x-4) = \\ -16x^2 + 64x =$$

$$\textcircled{102} \quad (x+5)(x-5) = \\ x^2 - 5x + 5x - 25 = \\ x^2 - 25 =$$

$$\textcircled{103} \quad (x+3)(x-3) = \\ x^2 - 3x + 3x - 9 = \\ x^2 - 9 =$$

$$\textcircled{104} \quad (x+4)(x-4) = \\ x^2 - 4x + 4x - 16 = \\ x^2 - 16 =$$

$$\textcircled{105} \quad (x+1)(x-4) = \\ x^2 - 4x + 1x - 4 = \\ x^2 - 3x - 4 =$$



$$\begin{aligned} (106) \quad (x+2)(x-2) &= \\ x^2 - 2x + 2x - 4 &= \\ x^2 - 4 &= \end{aligned}$$



$$\begin{aligned} (107) \quad (x+2)(x-4) &= \\ x^2 - 4x + 2x - 8 &= \\ x^2 - 2x - 8 &= \end{aligned}$$

$$\begin{aligned} (108) \quad (x-2)(x+4) &= \\ x^2 + 4x - 2x - 8 &= \\ x^2 + 2x - 8 &= \end{aligned}$$

$$\begin{aligned} (109) \quad (x-2)(x-4) &= \\ x^2 - 4x - 2x + 8 &= \\ x^2 - 6x + 8 &= \end{aligned}$$

$$\begin{aligned} (110) \quad (x+2)(x+4) &= \\ x^2 + 4x + 2x + 8 &= \\ x^2 + 6x + 8 &= \end{aligned}$$

$$\begin{aligned} (111) \quad (x-2)(x+6) &= \\ x^2 + 6x - 2x - 12 &= \\ x^2 + 4x - 12 &= \end{aligned}$$

19.

$$\begin{aligned} 112. \quad (x+4)(x-1) &= \\ x^2 - 1x + 4x - 4 &= \\ x^2 + 3x - 4 &= \end{aligned}$$

$$\begin{aligned} 113. \quad (8A-B)(8A-B) &= \\ 64A^2 - 8AB - 8AB + B^2 &= \\ 64A^2 - 16AB + B^2 &= \end{aligned}$$

$$\begin{aligned} 114. \quad (6x-y)(6x-y) &= \\ 36x^2 - 6xy - 6xy + y^2 &= \\ 36x^2 - 12xy + y^2 &= \end{aligned}$$

$$\begin{aligned} 115. \quad (10x+9y)(10x-9y) &= \\ 100x^2 - 90xy + 90xy - 81y^2 &= \\ 100x^2 - 81y^2 &= \end{aligned}$$

$$\begin{aligned} 116. \quad (2x-3)(x+6) &= \\ 2x^2 + 12x - 3x - 18 &= \\ 2x^2 + 9x - 18 &= \end{aligned}$$

$$\begin{aligned} 117. \quad (2x-5)(3x+4) &= \\ 6x^2 + 8x - 15x - 20 &= \\ 6x^2 - 7x - 20 &= \end{aligned}$$

$$\begin{aligned} (118) \quad & (3x-2)(x-1) = \\ & 3x^2 - 3x - 2x + 2 = \\ & 3x^2 - 5x + 2 = \end{aligned}$$

$$\begin{aligned} (119) \quad & (2x-7)(x-1) = \\ & 2x^2 - 2x - 7x + 7 = \\ & 2x^2 - 9x + 7 = \end{aligned}$$

$$\begin{aligned} (120) \quad & 3(2A+3)(A-2) = \\ & 3(2A^2 - 4A + 3A - 6) = \\ & 3(2A^2 - 1A - 6) = \\ & 6A^2 - 3A - 18 = \end{aligned}$$

$$\begin{aligned} (121) \quad & (A+B)(A+5B) = \\ & A^2 + 5AB + AB + 5B^2 = \\ & A^2 + 5AB + 1AB + 5B^2 = \\ & A^2 + 6AB + 5B^2 = \end{aligned}$$

$$\begin{aligned} (122) \quad & (2x-3y)^2 = \\ & (2x-3y)(2x-3y) = \\ & 4x^2 - 6xy - 6xy + 9y^2 = \\ & 4x^2 - 12xy + 9y^2 = \end{aligned}$$

$$\begin{aligned} (123) \quad & (4x-3)^2 = \\ & (4x-3)(4x-3) = \\ & 16x^2 - 12x - 12x + 9 = \\ & 16x^2 - 24x + 9 = \end{aligned}$$

