

$$\begin{aligned}
 & 2x(3x+5) > 2x \times 3x + 2x \times 5 \\
 & \quad \checkmark \qquad \qquad \checkmark \\
 & 6x^2 + 10x
 \end{aligned}$$

$$\begin{aligned}
 & 4xy(2x-5y) > 4xy \times 2x - 4xy \times 5y \\
 & \quad \checkmark \qquad \qquad \checkmark \\
 & 8x^2y - 20xy^2
 \end{aligned}$$

$$\begin{aligned}
 & -5z(-x+y) \\
 & \quad \checkmark \\
 & 5xz - 5yz
 \end{aligned}$$

$$\begin{aligned}
 & -3xyz(x^2+4) \\
 & \quad \checkmark \\
 & = -3x^3yz - 12xyz
 \end{aligned}$$

$$\begin{aligned}
 & 21x^2y^2(xy - xy^3) \\
 & \quad \checkmark \\
 & 21x^3y^3 - 21x^2y^4
 \end{aligned}$$

$$\begin{aligned}
 & -21xy \left(-\frac{1}{7}xy - 5xy \right) \\
 & \quad \checkmark \\
 & = \frac{189}{2}x^2y^2 = 94,5x^2y^2
 \end{aligned}$$

$$\frac{7}{5} y^2 z (-\frac{2}{3} y^2 z + 9)$$

$$-\frac{14}{15} y^4 z^2 + \frac{63}{5} y^2 z$$

$$-\frac{1}{8} z^2 (-8 + 88z^2)$$

$$= z^2 - 11z^4$$

2)

$$(a-b)(a+b)$$

$$\begin{array}{c} \downarrow \\ = a^2 + ba - ab - b^2 \end{array}$$

$$(2x+5)(x^2+x)$$

$$\begin{array}{c} \downarrow \\ 2x^3 + 7x^2 + 5x \end{array}$$

$$(m^2+n^2)(m^2-n^2)$$

$$\begin{array}{c} \downarrow \\ = m^4 - n^4 \end{array}$$

$$\begin{array}{l} 6x^2y + 11yz^2 - 15x^2y + \\ 3y^2 - 2xyz^4 + 5x^3y^2 \\ z^2 \end{array}$$

3)

a)

$$-x \times (8 + 15x)$$

$$-8x - 15x^2$$

b)

$$y - 42xy + 28x - 4$$

c)

$$m^2 + 2mm + n^2$$

d)

$$3m^4 - 3m^2n^2 - n^2$$