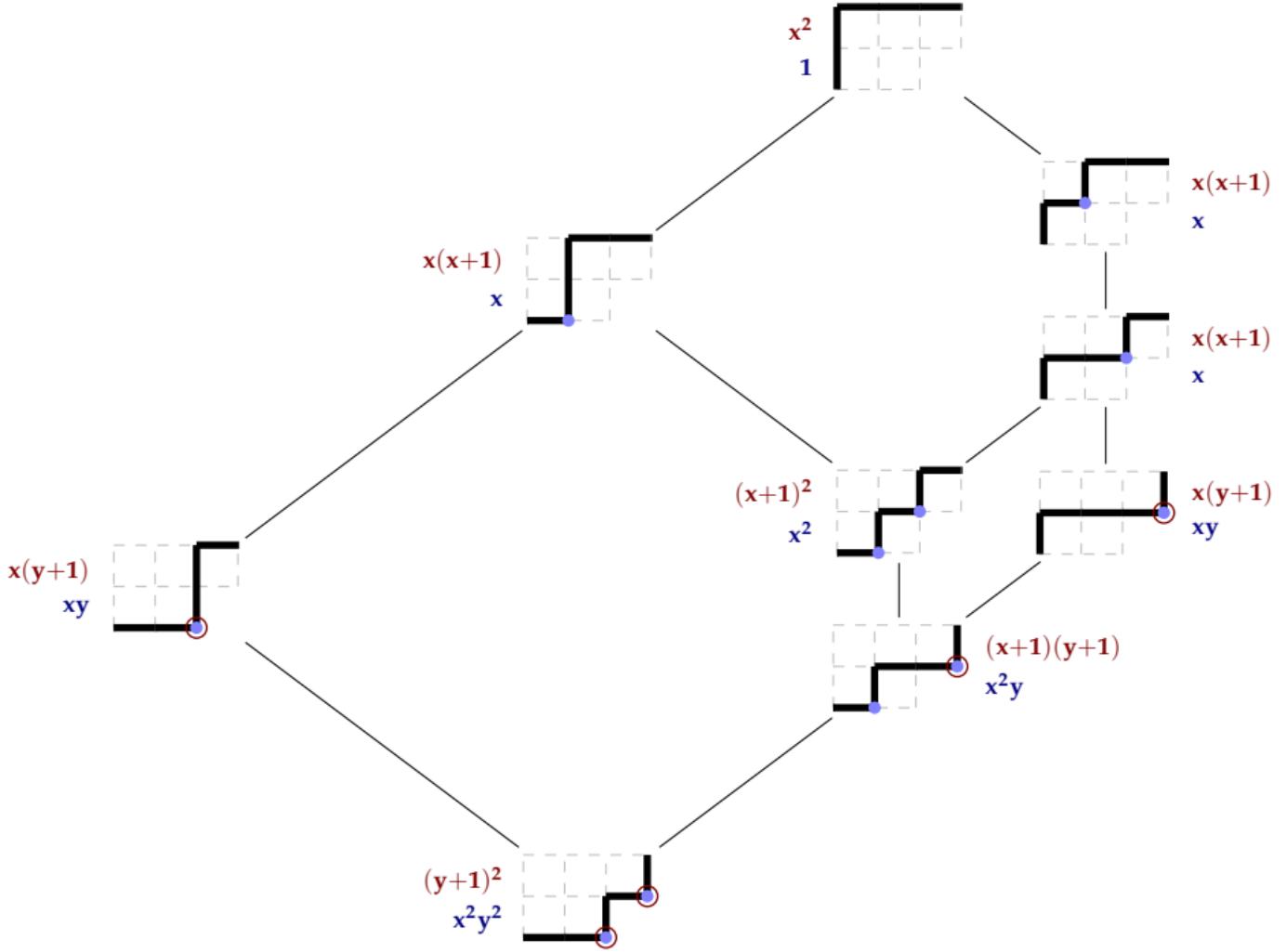
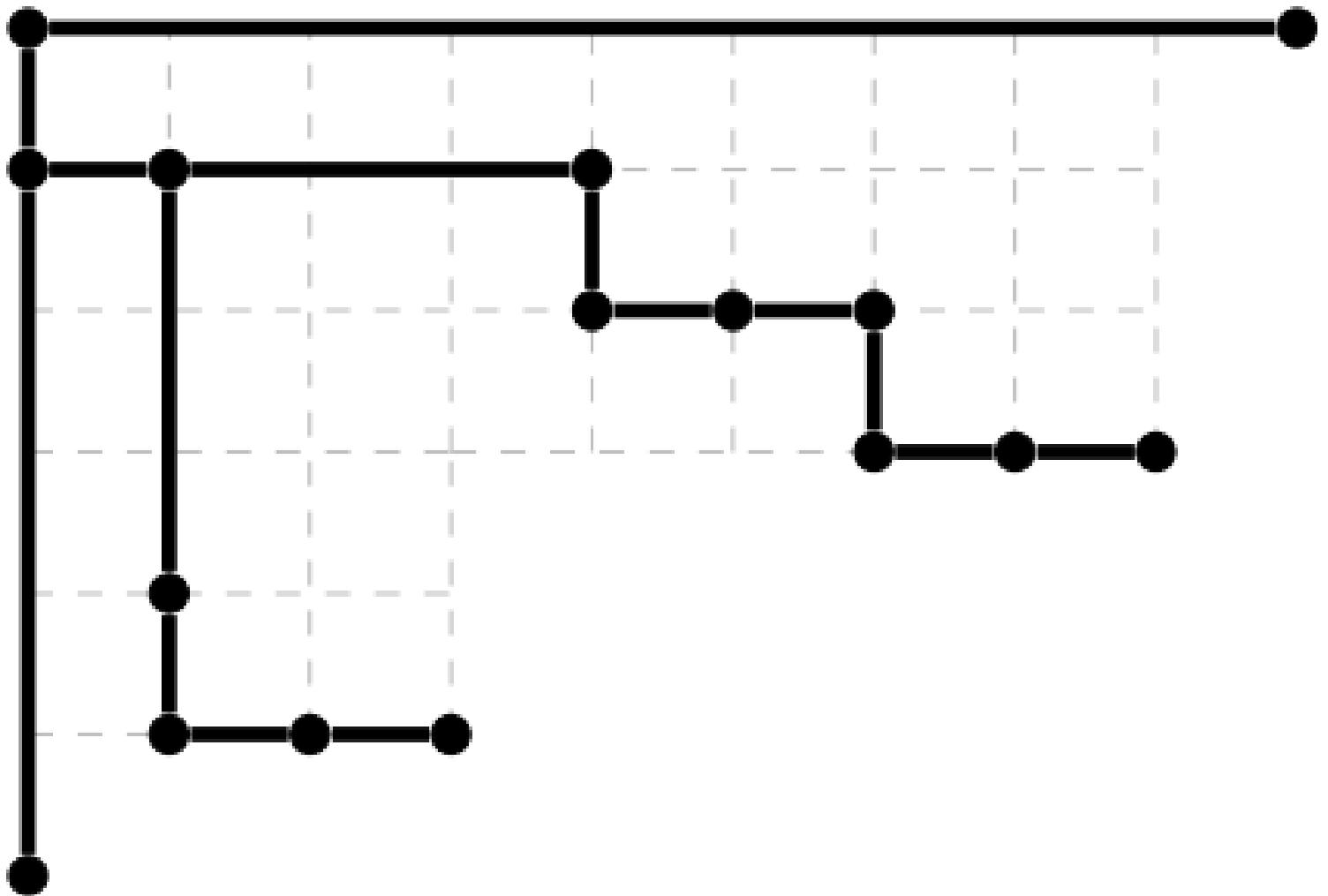
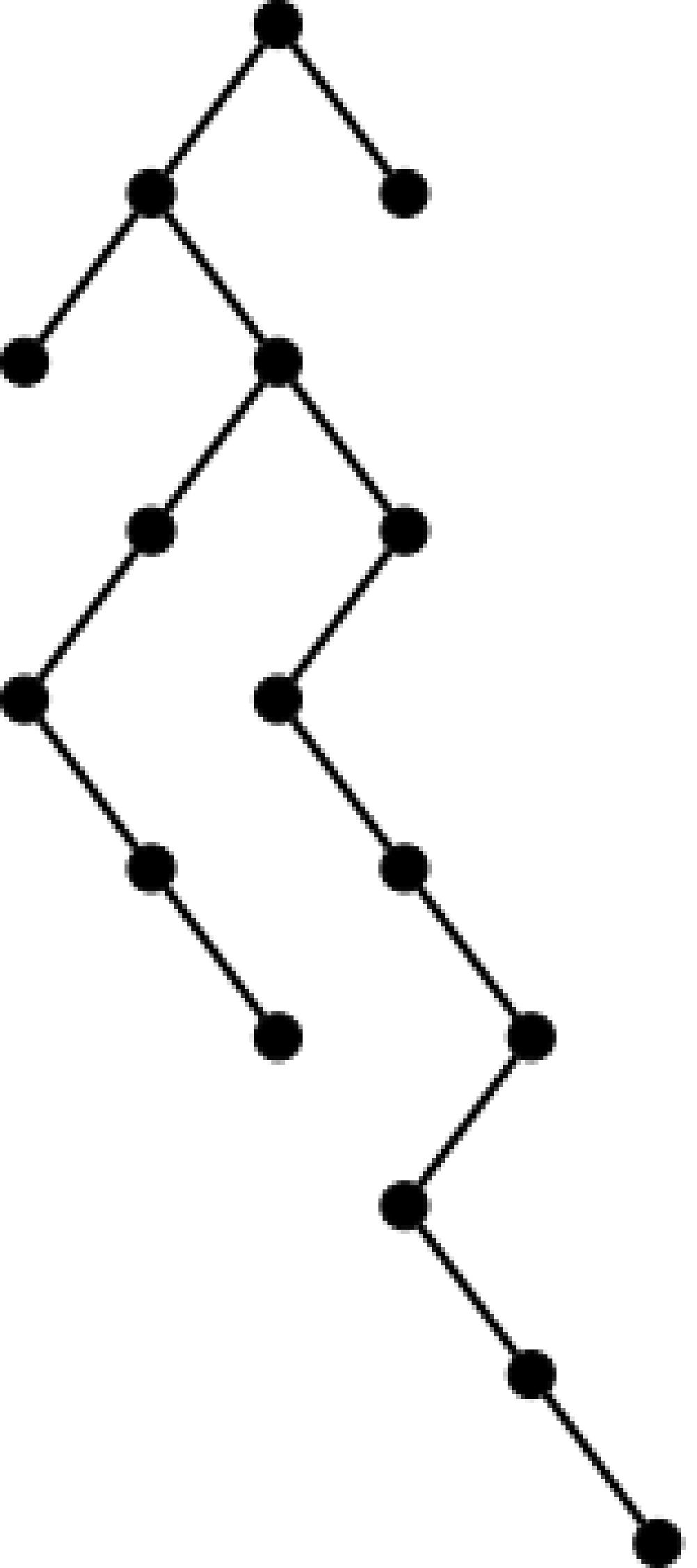
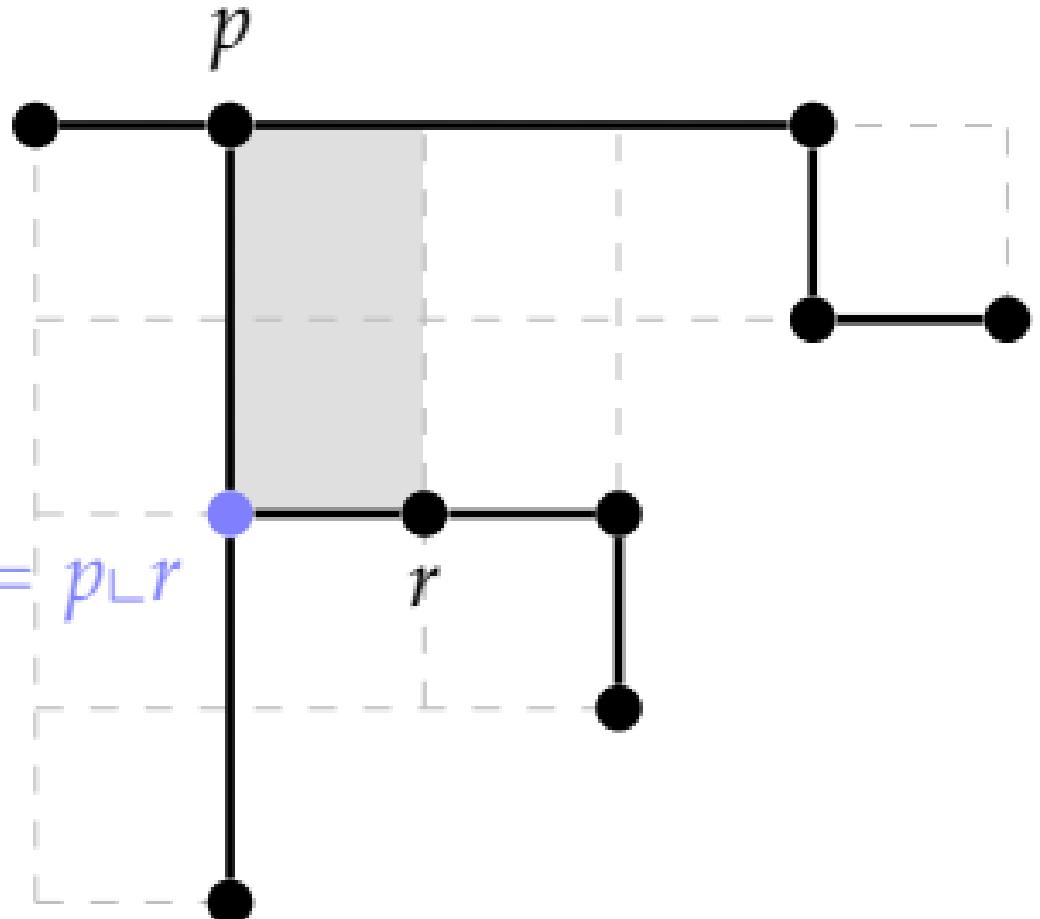


$\nwarrow v$

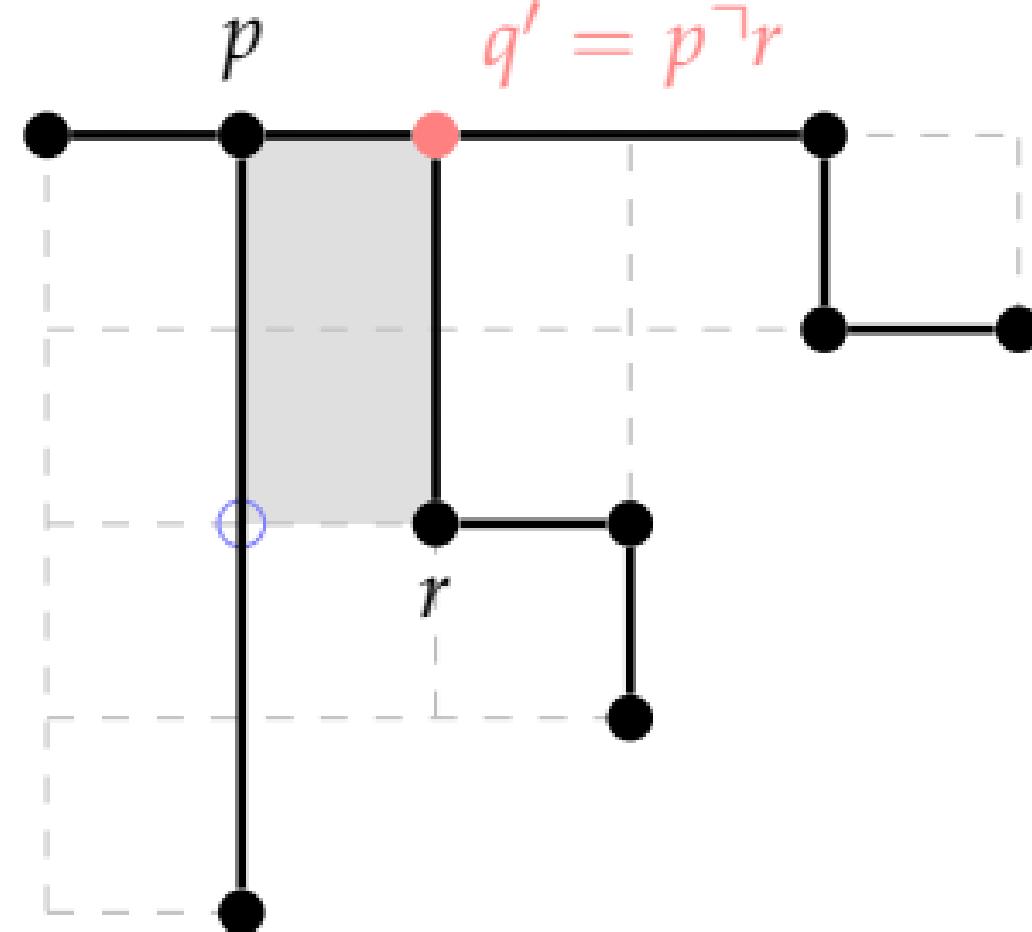


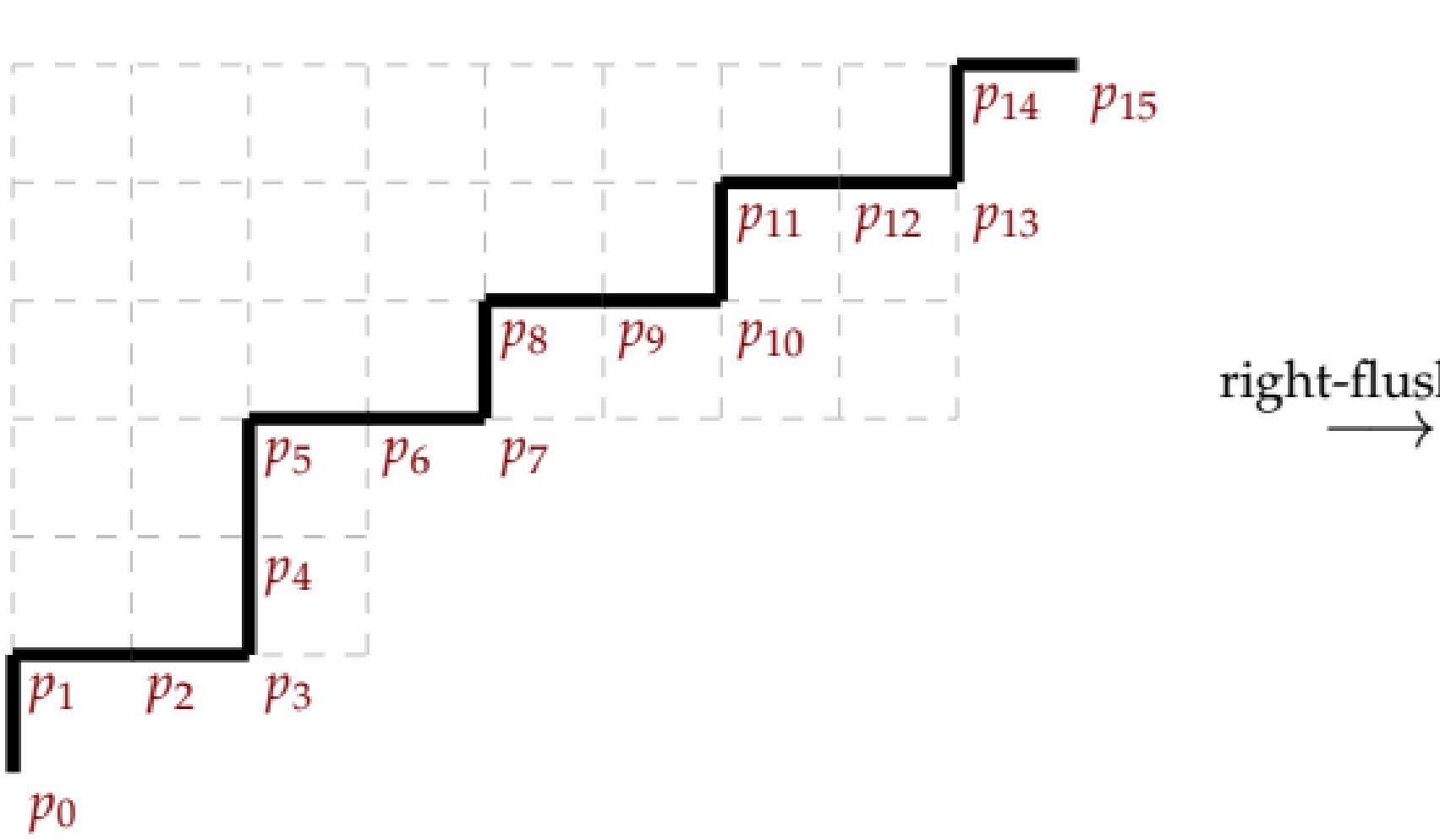




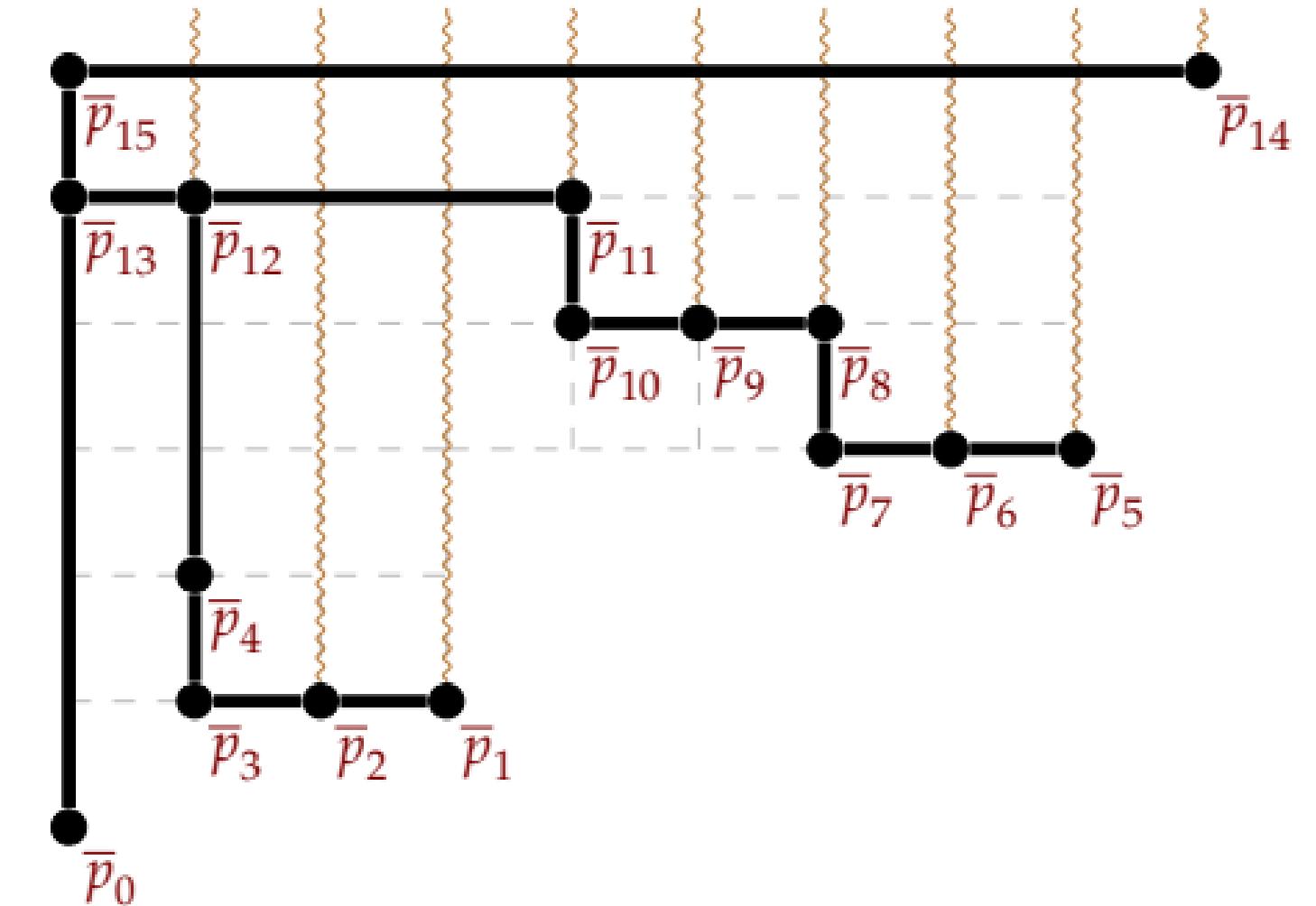


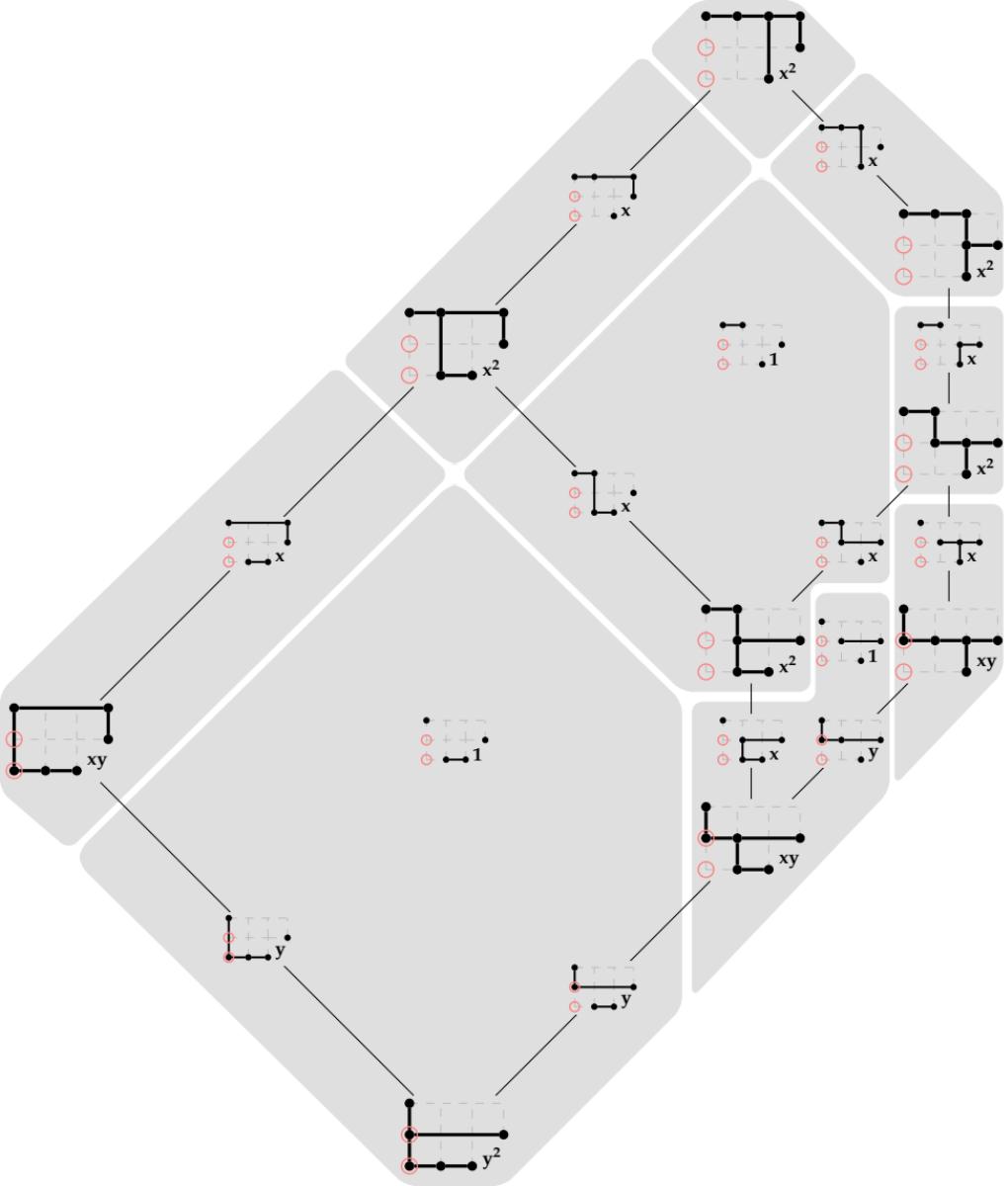
$\lessdot_{\mathcal{V}}$

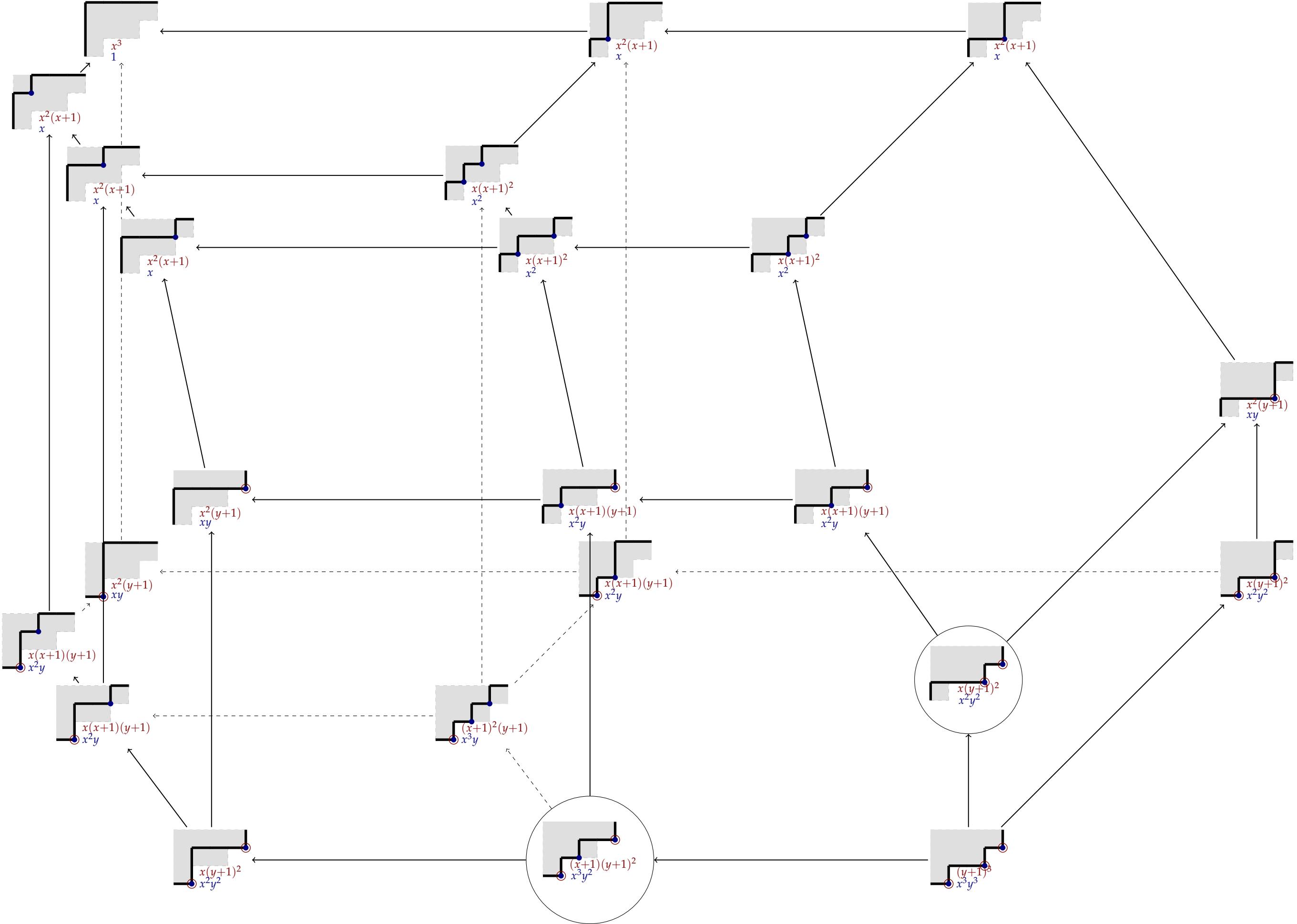


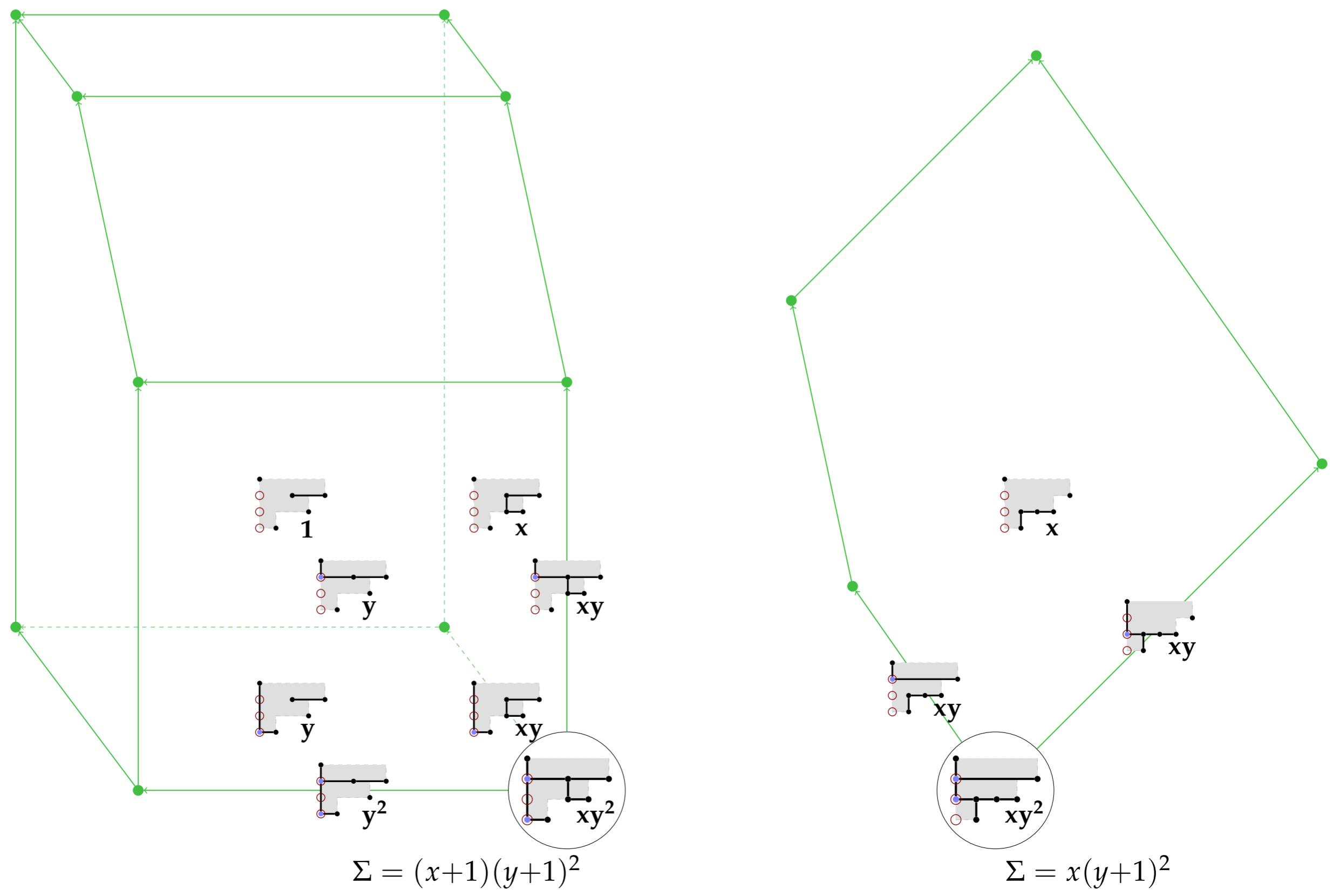
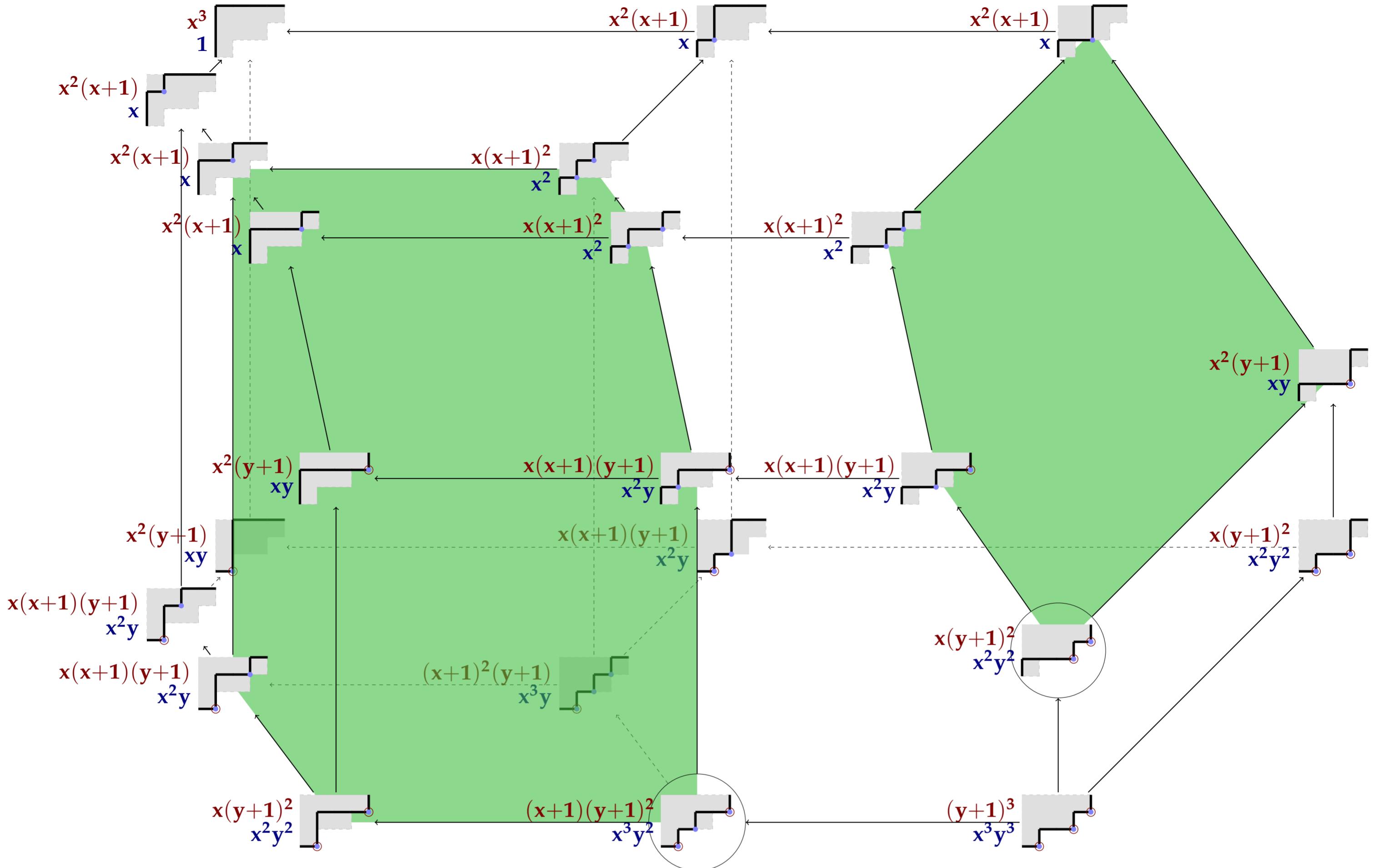


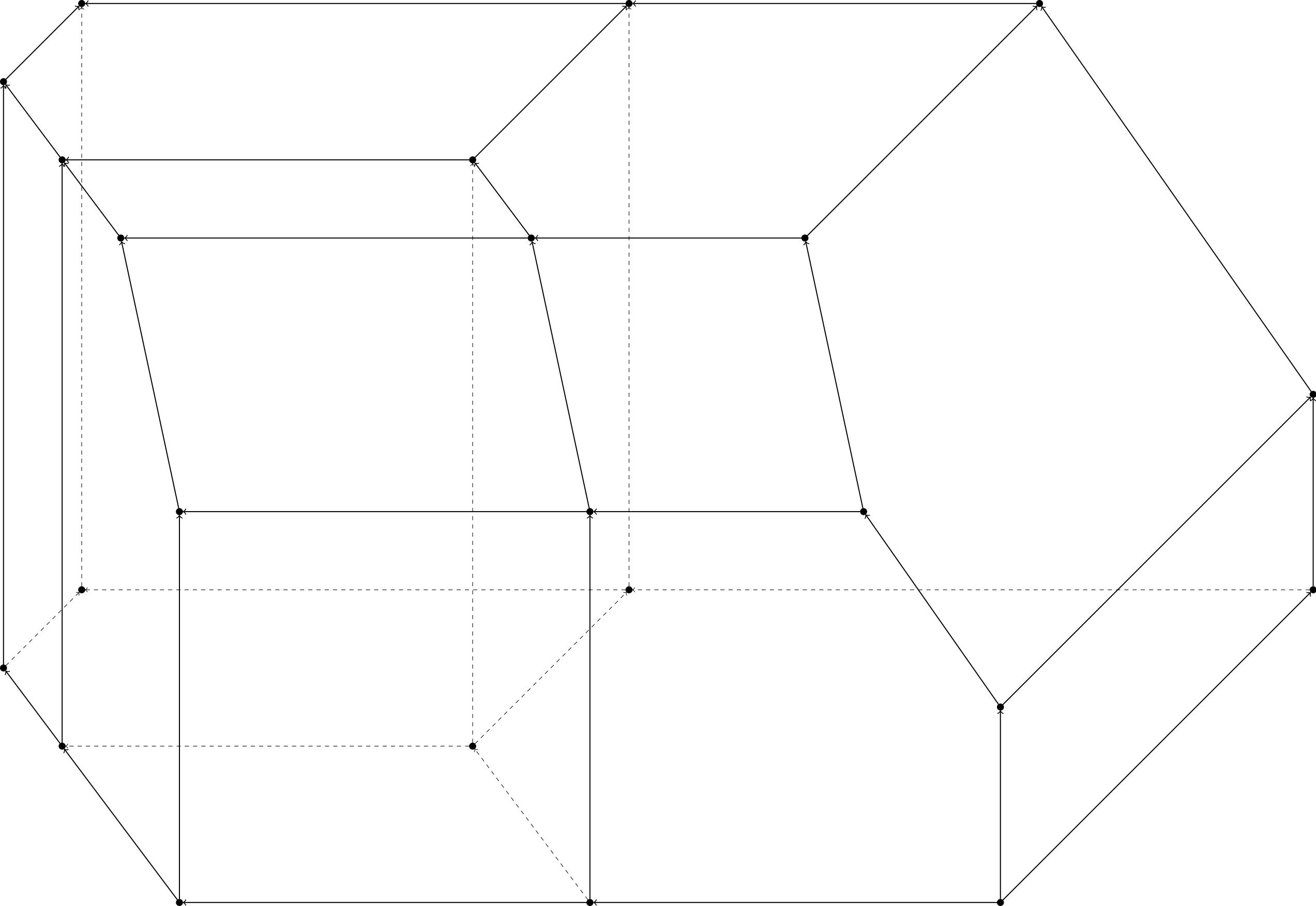
right-flushing
→



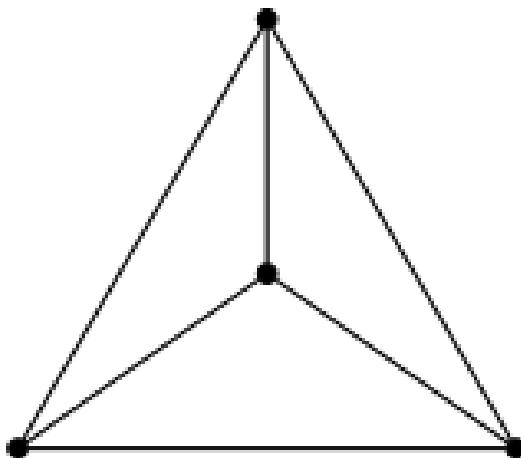








A subdivided triangle (a 2-ball)



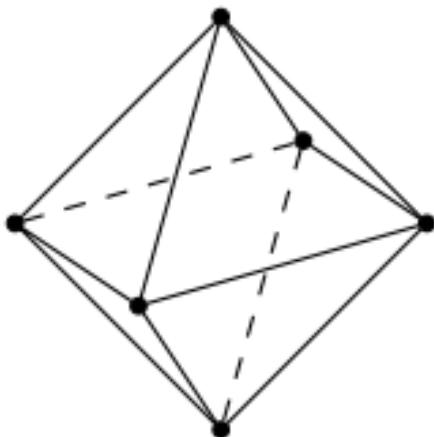
$$f = (1, 4, 6, 3)$$

$$h = (1, 1, 1, 0)$$

$$\tilde{h}(x) = 1 + x + x^2$$

$$x^3 \tilde{h}\left(\frac{x+1}{x}\right) = 3x^3 + 3x^2 + x$$

The boundary of
an octahedron
(a 2-sphere)



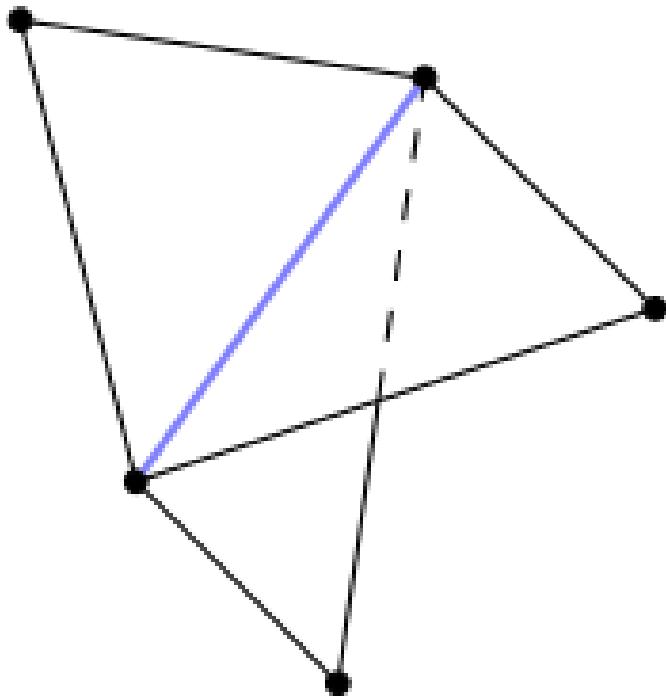
$$f = (1, 6, 12, 8)$$

$$h = (1, 3, 3, 1)$$

$$\tilde{h}(x) = 1 + 3x + 3x^2 + x^3$$

$$x^3 \tilde{h}\left(\frac{x+1}{x}\right) = 8x^3 + 12x^2 + 6x + 1$$

Three triangles glued
along an edge



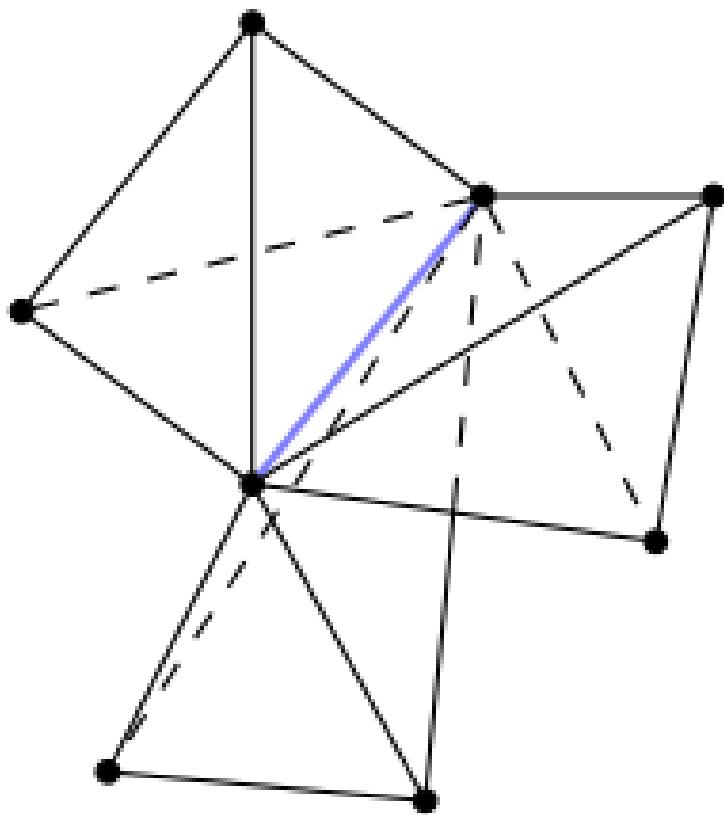
$$f = (1, 5, 7, 3)$$

$$h = (1, 2, 0, 0)$$

$$\tilde{h}(x) = 1 + 2x$$

$$x^3 \tilde{h}\left(\frac{x+1}{x}\right) = 3x^3 + 2x^2$$

Three tetrahedra glued along an edge



$$f = (1, 8, 16, 12, 3)$$

$$h = (1, 4, \textcolor{red}{-2}, 0, 0)$$

$$\tilde{h}(x) = 1 + 4x - 2x^2$$

$$x^4 \tilde{h}\left(\frac{x+1}{x}\right) = 3x^4 - 2x^2$$

