VD 8.4

Expand the binomials

1. $\left(x-\frac{1}{y}\right)^4$	$x^4-4\frac{x^3}{y}+6\frac{x^2}{y^2}-4\frac{x}{y^3}+\frac{1}{y^4}$
2. $\left(2xy+2y\right)^3$	$8x^3y^3+24x^2y^3+24xy^3+8y^3$
3. $\left(x+2y-z\right)^3$	$x^3+8y^3-z^3+6x^2y+12xy^2-3x^2z+3xz^2-12y^2z+6yz^2-12xyz$
4. $\left(\frac{2}{5}x+y\right)^4$	$\frac{16}{625}x^4+\frac{32}{125}x^3y+\frac{24}{25}x^2y^2+\frac{8}{5}xy^3+y^4$
5. $\left(3x-y\right)^4$	$81x^4-108x^3y+54x^2y^2-12xy^3+y^4$
6. $\left(2x+3y\right)^3$	$8x^3+36x^2y+54xy^2+27y^3$
7. $\left(\frac{1}{y}+\frac{y}{x}\right)^4$	$\frac{1}{y^4}+\frac{4}{xy^2}+\frac{6}{x^2}+\frac{4y^2}{x^3}+\frac{y^4}{x^4}$