28. $\quad y''_{xx} = f(y)y'_x + g(x).$

Integrating yields a first-order equation:

$$y'_x = \int f(y)\,dy + \int g(x)\,dx + C.$$

Reference

Polyanin, A. D. and Zaitsev, V. F., *Handbook of Exact Solutions for Ordinary Differential Equations, 2nd Edition*, Chapman & Hall/CRC, Boca Raton, 2003.