Find the particular solutions for the following differential equations at their given points.

1) $\dfrac{dy}{dx} = \dfrac{x}{y}$ at $(-1, -2)$

2) $\dfrac{dy}{dx} = \dfrac{y}{x^2}$ at $(-2, 1)$

3) $\dfrac{dy}{dx} = \dfrac{y+3}{\sqrt{x}}$ at $(1, 1)$

4) $\dfrac{dy}{dx} = xy^2$ at $(1, 2)$