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The ODEs in the table below belong to <u>at least</u> one of the following four classes of equations:

SEPARABLE   LINEAR   BERNOULLI   HOMOGENEOUS

Please write YES or NO in each of the empty cells in the table below

EQUATION	SEPARABLE	LINEAR	BERNOULLI	HOMOGENEOUS
$\dfrac{dy}{dx} + \dfrac{2}{x}\, y = \dfrac{1}{x^4}\, y^4$				
$\dfrac{dy}{dx} = 2\,(y + 5)\, e^x$				
$\dfrac{dy}{dx} = \dfrac{\sqrt{y} - y}{\sin x}$				