$$\sin(8x)\,\frac{dy}{dx} + (8\cos(8x))\,y = \sin(x^4) \quad \Rightarrow \quad [(\sin(8x))\,y]' = \sin(x^4) \quad \Rightarrow$$

$$(\sin(8x))\,y = \int \sin(x^4)\,dx \quad \Rightarrow \quad y = \frac{\int \sin(x^4)\,dx + C}{\sin(8x)}.$$