# Daily ODE - 2117/2022

Which of the equations below are linear (in $y(x)$)?

A. $e^{x}\sinh(x)\,y^{(9)} - \dfrac{e^{\tan(x)}}{\cosh(x)}\,y'' + y = \arcsin(x^2)$

B. $\dfrac{1}{xy} + y' = y''$

C. $\cos(x)\,y'' - xy' + xy^2 = 0$

D. $x^2 y^{(5)} - e^{x} y'' + \cot(x)y = \sin(x)e^{x}$

E. $xy\sin(x)\,dx + \cos(x)\,dy = 0$

F. $xy\sin(y)\,dx + \cos(x)\,dy = 0$