Is is Linear?

**Quiz:** Is it Linear?
We will develop a theory of linear equations, complete with an algorithm for solving them. It’s important to recognize them when you see them.

Which of the following are linear ODE’s?
1. $\dot{x} + x^2 = t$
2. $\dot{x} = (t^2 + 1)(x - 1)$
3. $\dot{x} + x = t^2$

**Choices:**
a) None  
b) (1) only  
c) (2) only  
d) (3) only  
e) All  
f) All but (1)  
g) All but (2)  
h) All but (3)

Pick what you think is the correct choice and then look at the answer.