Which numbers $x$ are solutions to the equation?

$$
2^{x}=x+1
$$

- $x=0$
- $x=1$
- $x=2$

Which functions $y$ are solutions to the "differential equation"?

$$
y^{\prime \prime}+y^{\prime}=2 y
$$

- $y=e^{x}$
- $y=e^{x}+1$
- $y=e^{-2 x}$

