$$5^{x+1} - 5^x + 5^{x-2} = 101$$

$$5^x \cdot 5 - 5^x + 5^x \cdot 5^{-2} = 101$$

$$5a - a + \frac{a}{25} = 101$$

c.v. $5^x = a$

$$4a + \frac{a}{25} = 101$$

$$\frac{100a}{25} + \frac{a}{25} = \frac{2525}{25}$$

$$101a = 2525$$

$$a = 25$$

$$5^x = a = 25 = 5^2$$

$$\boxed{x = 2}$$