

$$a^x = a^0$$

$$\text{Ex. } \boxed{x+2} = \boxed{8}$$

$$x+2 = 8$$

$$-2 \quad -2$$

$$x = 6$$

$$\underline{\text{Ex}} \quad 27^{2x+5} = 243^{x-7}$$

$$3^{3(2x+5)} = 3^{5(x-7)}$$

$$3(2x+5) = 5(x-7)$$

$$6x + 15 = 5x - 35$$

$$-5x \quad -5x$$

$$x + 15 = -35$$

$$-15 \quad -15$$

$$x = -50$$

$$\left(\frac{1}{4}\right)^{x+3} = 32$$

$$2^{-2(x+3)} = 2^5$$

$$-2(x+3) = 5$$

$$-2x - 6 = 5$$

$$+6 \quad +6$$

$$\frac{-2x}{-2} = \frac{11}{-2} \quad x = -\frac{11}{2}$$