

1. (1)  $5^{-2} = \frac{1}{5^2} = \frac{1}{25}$

(3 点)

(2)  $\left(\frac{1}{2}\right)^{-3} = (2^{-1})^{-3} = 2^3 = 8$

(3 点)

(3)  $(2^{-2})^{-3} = 2^6 = 64$

(3 点)

(4)  $4^{-3} \div 4^{-4} \times 4^2 = 4^{-3-(-4)+2} = 4^3 = 64$

(3 点)

2. (1)  $(a^2b^{-3})^{-2} = (a^2)^{-2}(b^{-3})^{-2} = a^{-4}b^6 = \frac{b^6}{a^4}$

(4 点)

(2)  $\left(\frac{y^{-3}}{x^2}\right)^{-4} = (x^{-2}y^{-3})^{-4} = x^8y^{12}$

(4 点)