2.3

1) $5^{-3} = \dfrac{1}{5^3} = \dfrac{1}{125}$

2) $2^{-4} = \dfrac{1}{2^4} = \dfrac{1}{16}$

3) $3^{-2} = \dfrac{1}{3^2} = \dfrac{1}{9}$

4) $4^{-5} = \dfrac{1}{4^5} = \dfrac{1}{1024}$

5) $\left(\dfrac{2}{3}\right)^{-3} = \dfrac{1}{\left(\dfrac{2}{3}\right)^3} = \dfrac{1}{\dfrac{2^3}{3^3}} = \dfrac{1}{\dfrac{8}{27}} = \dfrac{27}{8}$

6) $\left(-\dfrac{4}{5}\right)^{-2} = \dfrac{1}{\left(-\dfrac{4}{5}\right)^2} = \dfrac{1}{\dfrac{16}{25}} = \dfrac{25}{16}$

7) $\left(\dfrac{3}{4}\right)^{-1} = \dfrac{1}{\left(\dfrac{3}{4}\right)^1} = \dfrac{1}{\dfrac{3}{4}} = \dfrac{4}{3}$

8) $0{,}1^{-6} = \left(\dfrac{1}{10}\right)^{-6} = (10^{-1})^{-6} = 10^{(-1)\cdot(-6)} = 10^6 = 1\,000\,000$