Answer the questions

(1) $\left[\left\{\left(-\frac{1}{5}\right)^{-1}\right\}^{1}\right]^{-1}$ = ?

(2) $\left\{\left(\frac{-2}{2}\right)^{4} \div \left(\frac{4}{2}\right)^{2}\right\}^{-1}$ = ?

(3) $\left\{\left(\frac{-2}{2}\right)^{2} \times \left(\frac{1}{2}\right)^{2} \times \left(\frac{3}{4}\right)^{2}\right\}^{-1}$ = ?

(4) $\left[\left\{\left(\frac{1}{2}\right)^{x}\right\}^{-1}\right]^{-1} = 4$

Find the value of *x*.

(5) $\left(\frac{3}{2}\right)^{3} \times \left(\frac{-2}{2}\right)^{2} \times \left(\frac{1}{2}\right)^{2} = ?$

(6) Simplify the following and write the answer in the exponential form

A) $\frac{2^5}{2^9} \times 2^7$

B) $\frac{3^4 \times 3^1}{3^6 \times 3^7 \times 3^7} \times 3^8 \times 3^9$

C) $\frac{3^6}{3^2 \times 3^4 \times 3^3} \times 3^7 \times 3^6$

D) $\frac{3^3}{3^3} \times 3^6$

(7) If x = 2 and y = 2, find the value of $(x+y)^y$.

(8) Find the value of the following.

A) $4^2 \times 4^2$

B) $5^2 \times 5^3$

C) $3^4 \times 1^4$

D) $3^2 \times 0^4$

(9) Simplify the following and write the answer in the exponential form.

A) $\frac{3^9 \times 3^5 \times 3^5 \times 9^5}{3^7 \times 27^8} \times 3^7 \times 27^4$

B) $\frac{8^9}{4^8} \times 4^5$

C) $\frac{7^3 \times 343^4 \times 7^5}{7^7 \times 7^5 \times 49^4} \times 7^2$

D) $\frac{125^5}{125^3} \times 125^7$

(10) If $2^p + 2^{p+1} = 24$, find the value of p.

(11) If x = 3 and y = 4, find the value of $\left(y+\frac{y}{x}\right)^{x}$.

(12) Find the product of the square of $\frac{-2}{3}$ and the cube of $\frac{-4}{2}$

(13) Write the number for the following expanded forms:

A) $2\times10^{6} + 8\times10^{1} + 3\times10^{0} + 5\times10^{6} + 0\times10^{0} + 7\times10^{7} + 6\times10^{5}$

B) $5\times10^{8} + 1\times10^{4} + 0\times10^{5} + 5\times10^{3} + 2\times10^{3} + 4\times10^{8}$

(14) Simplify the following and write the answer in the exponential form.

A) $7^{4} \times 49^{6} \times 7^{2}$

B) $49^{3} \times 7^{5} \times 49^{5} \times 49^{6} \times 7^{9} \div 7^{9}$

C) $9^{8} \times 27^{6}$

D) $343^{2} \times 7^{9} \times 7^{9} \times 343^{2}$

Check True/False

(15) $14^{8} > 8^{14}$

○ True ○ False