

Q4HW3 - All work on looseleaf. Must do "CHECKS". Date_____ Period_____

Solve each equation.

1) $2^{1-x} = 16$

2) $6^{3n} = 216$

3) $3^{-m} = 243$

4) $2^{2p} = 4$

5) $81^{-2x-1} = 27^{2x}$

6) $8^{2n-1} = 4$

7) $27^{-2b-2} = \frac{1}{9}$

8) $8^{r-2} = 4^{r+3}$

9) $\frac{16^{3x}}{64} = 16^{x-1}$

10) $625 \cdot 625^{-3n-2} = 125$

11) $\frac{1}{625} \cdot 125^{-v} = 25^{-v}$

12) $\left(\frac{1}{4}\right)^{3a} \cdot \left(\frac{1}{64}\right)^{a-3} = 16^{a+3}$

Sketch the graph of each function.

13) $y = 3^x$

14) $y = \left(\frac{1}{4}\right)^x$