

Classwork Exponential Functions

Please work all problems on a separate sheet of paper.

By translating, reflecting, and stretching the graph of $f(x) = 2^x$, obtain the graphs of the following functions. Give the domain, range, and equations of any asymptotes of the function.

1. $f(x) = 2^x + 2$

2. $f(x) = 2^{x-2} - 3$

3. $f(x) = -2^{x+1}$

4. $f(x) = 2^{x-1} + 1$

By translating, reflecting, and stretching the graph of $f(x) = 2^x$, obtain the graphs of the following functions. Give the domain, range, and equations of any asymptotes of the function.

5. $f(x) = e^x - 2$

6. $f(x) = e^{x+1} + 2$

7. $f(x) = -e^{x+2}$

8. $f(x) = e^{x-1} + 1$