1. Determine if the statement is sometimes, always, or never true.
\[ \ln M = \frac{\log M}{\log e} \] (Assume \( M > 0 \)).

2. Determine if the statement is sometimes, always, or never true.
\[ \left( \frac{1}{4} \right)^x < \left( \frac{1}{5} \right)^x \]

3. Determine if the statement is sometimes, always, or never true.
\[ \log_a M' = \frac{\log_a M}{r} \] (Assume \( M > 0, a > 0 \), and \( a \neq 1 \)).

4. Determine if the statement is sometimes, always, or never true.
\[ \log x - \log y = \frac{\log x}{\log y} \] (Assume \( x > 0 \) and \( y > 0 \)).

5. Determine if the statement is sometimes, always, or never true.
\[ \log_a M' = r \log_a M \] (Assume \( M > 0, a > 0 \), and \( a \neq 1 \)).

6. Determine if the statement is sometimes, always, or never true.
y = \log_a x \text{ if and only if } y = a^x \] (Assume \( x > 0, a > 0 \), and \( a \neq 1 \)).

7. Determine if the statement is sometimes, always, or never true.
\[ a^x = \left( \frac{1}{a} \right)^{-x} \] (Assume \( a > 0 \)).

8. Determine if the statement is sometimes, always, or never true.
\[ a^x = -a^x \] (Assume \( a > 0 \)).

9. Determine if the statement is sometimes, always, or never true.
\[ 3^x > 2^x \]

10. Determine if the statement is sometimes, always, or never true.
\[ \log x - \log y = \log \left( \frac{x}{y} \right) \] (Assume \( x > 0 \) and \( y > 0 \)).

11. Determine if the statement is sometimes, always, or never true.
\[ \ln M = \frac{\log e}{\log M} \] (Assume \( M > 0 \)).
[1] always true
[2] sometimes true
[3] sometimes true
[4] sometimes true
[5] always true
[6] never true
[7] always true
[8] never true
[9] sometimes true
[10] always true