**SOLVING INEQUATIONS**:

The various strategies that we typically use to solve exponential and logarithmic equations remain the same, only that the symbol is not an equal sign (=).

Inequations use the following four symbols:

*> -greater than*
*< -less than*
*≥ -greater than or equal to*
*≤ -less than or equal to*

7.3 WORKED EXAMPLE

For each inequation, make $x$ as the subject by changing it to logarithmic form. Then, use the change-of-base formula to solve it, correct to three significant figures.

1. $2^x > 15$
2. $2^x \leq 0.002$
3. $2^x < 100$

7.4 WORKED EXAMPLE

Solve the following inequations, correct to three significant figures.

1. $2^{x-1} < 1$
2. $5^{x-2} \leq 7$
3. $3^{x+2} > 10$