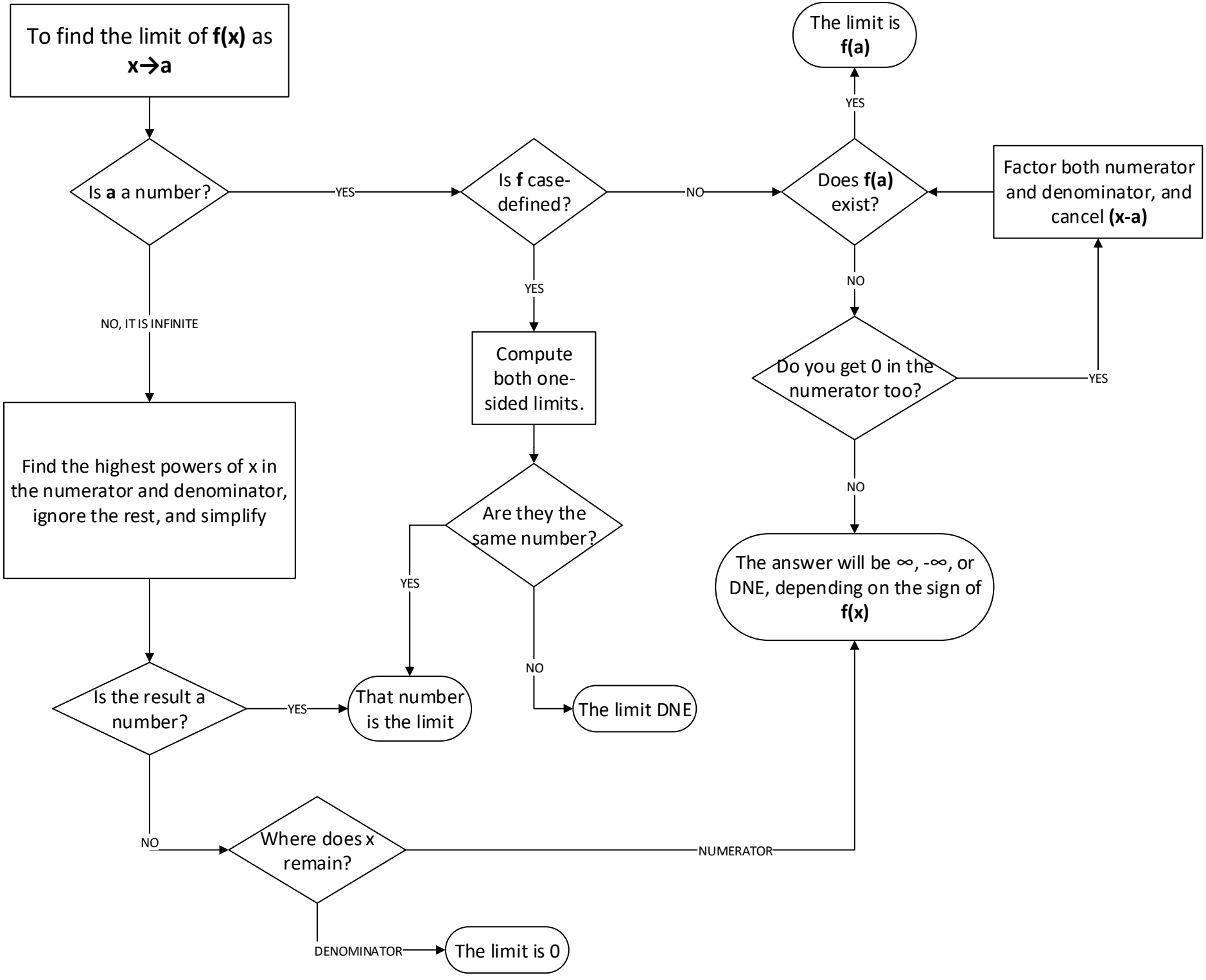
To find the limit of **f(x)** as **x→a**
Is **a** a number?
YES
NO, IT IS INFINITE
Is **f** case-defined?
YES
NO
Compute both one-sided limits.
Are they the same number?
YES
NO
That number is the limit
The limit DNE
Does **f(a)** exist?
YES
The limit is **f(a)**
NO
Do you get 0 in the numerator too?
YES
Factor both numerator and denominator, and cancel **(x-a)**
NO
The answer will be ∞, -∞, or DNE, depending on the sign of **f(x)**
Find the highest powers of x in the numerator and denominator, ignore the rest, and simplify
Is the result a number?
YES
That number is the limit
NO
Where does x remain?
NUMERATOR
DENOMINATOR
The limit is 0