

Fold Expressions Exercises

Fold Expressions

- Explain briefly what is meant by a fold expression
- What are "left fold" and "right fold" expressions?

Fold Expression

- Complete the following variadic function template by adding a left fold expression that adds all arguments and returns the result

```
template <typename... Args>  
auto add(Args... args) {  
}
```

Fold Expression

- Before C++17, how were variadic template arguments processed?
- What are the advantages of using fold expressions?

Fold Expression with Initial Value

- Alter your previous solution so that the initial value of the sum is 100
- Why was it not necessary to provide an initial value before?

Printing Arguments

- Write a variadic template function that uses a fold expression to print out all its arguments
- Write a program to test your function

"Short-circuit" evaluation

- Explain what is meant by "short-circuit" evaluation
- Write a variadic template function with a fold expression that uses short-circuit evaluation
- Write a program to test your function