Friday, April 2, 2021

Today:
- function overloading
- operator overloading
- ex 10-2 review
- ex 10-3

slido.com
jhuicp01

+2 late days
(3 allowed HW5, HW7)

HW6 due Thurs 2/8
written homework
(no late days)

Recap Qs

1) >1 functions w/ same name
distinguished via parameters / arguments
called funct / caller

2) No.

3) Yes? (not `.`, `:?` (ternary), or `.*` (use of pointer to member function))

4) copy ctor

- constructor where param is reference to obj of same type

```
class Name {
  :
public:
    Name ( const string & last, const string & first );
    Name ( const Name &other );
```

mandatory

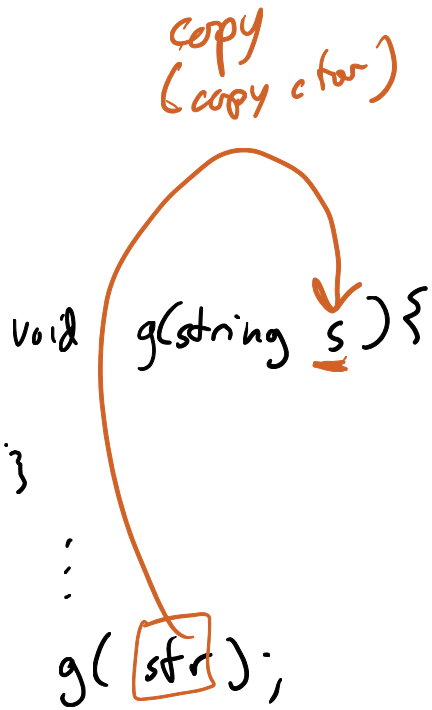
When called:

- decare variable

```
void f( const Name &n ) {
    Name n2 ( n );
```

- pass-by-value!
- initializer of variable

```
Name n2 = n;   //copy ctor!
```



5) sadness

you get compiler-generated copy ctor

member-wise copying

e.g. Name

```
// equiv to compiler-gen copy ctor
Name::Name(const Name& other)
    : last(other.last)
    , first(othr.first)
{
}
```

Bad if objects manage dynamic resources

e.g. memory or file

6) friend

- allow different class or non-member function to access private members

- common use: << or >> for I/O

use sparingly

Breakout rooms

1 - 5 : "classic / collab"

6 - 20 : DIY