

CNAPS 12A 4-6-10

Recall: declaration vs. assignment

Ex.

int i;

⋮

i = 6 + 7;



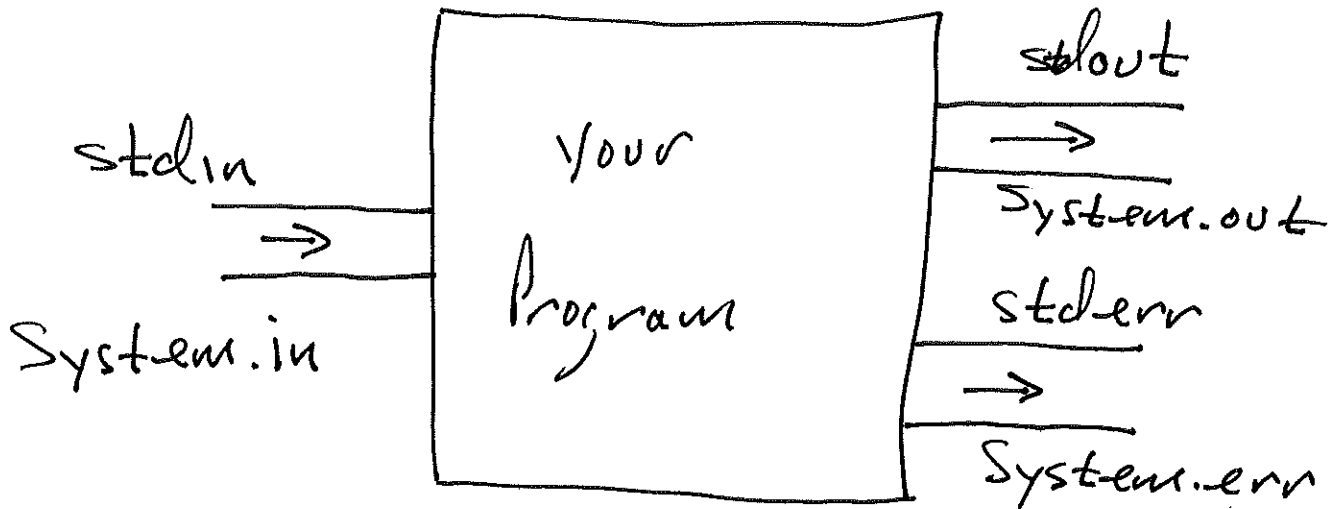
Variable = expression;

↑
assignment OP.

In HelloWorld4.java :

```
Scanner sc = new Scanner(System.in);
```

by default this refers to keyboard input.



```
name = sc.next();
```

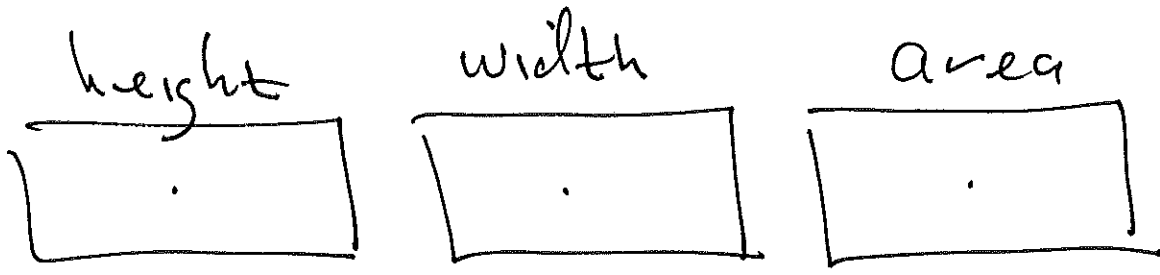
Memory

sentence1	sentence2	name
Hello, World!	My name is	blah

output:

```
Hello, World
My name is blah
```

In Area.java



other methods in Scanner class

- next() String
- nextDouble() double
- nextInt() int
- nextBoolean() boolean

Calling methods

```
System.out.println("Hello, World!");
```



function argument

```
sc.nextDouble();
```

no argument

System.out is an instance of PrintStream, which contains a method called println()

General Form:

```
instance_of_class.name_of_method( )
```



arguments

In FindSmallest.java

Math.min(x, y);

follows different pattern:

class_name.method_name()
 ↘
 arguments.

Two types of methods

class methods: (static)

className.methodName()

instance methods:

instanceOfClass.method()

Number Types

Seven primitive numeric types

	<u>Type</u>	<u>Size</u>	<u>Range</u>
Integer types	byte	8 bits	-128 ... +127
	short	16 ..	-32768 .. +32767
	char	16 ..	0 65536
	int	32 ..	-2147483648 ... +
	long	64 ..	2147483647
			→ ± 18 digits
floating point types	float	32 ..	7 dec digits
	double	64 ..	15 dec digits

What is printed by

[10]

System.out.println(x);

?

Answer: A