

```
def square(x:Int):Int = x*x
```

```
def foo(x:Int, y:Int, z:Int):Int = if(x==y) x*x else z
```

Functions	Call by name	Call by value
foo(1+3, 2+2, 5)	if((1+3) == (2+2)) if(4==(2+2)) if(4==4) (1+3)*(1+3) 4*(1+3) 4*4 16	foo(4,2+2,5) foo(4,4,5) if(4==4) 4*4 16  Winner!
foo(1, 1, 6+8* <u>square(3)</u> )	if(1==1) 1*1 1  Winner!	foo(1,1,6+8*(3*3)) foo(1,1,6+8*9) foo(1,1,54+6) foo(1,1,60) if(1==1) 1*1 1
foo(1+3, <u>square(2)</u> , 4+ <u>square(5)</u> )	if((1+3)==square(2)) if(4==square(2)) if(4==2*2)) if(4==4)) (1+3)*square(2) 4*square(2) 4*2*2 4*4 16 Tied!	foo(4,square(2),4+square(5)) foo(4,(2*2),4+square(5)) foo(4,4,4+square(5)) foo(4,4,4+(5*5)) foo(4,4,4+25)) foo(4,4,29) if(4==4) 4*4 16 Tied!
foo(3*2, 12, 6)	if((3*2)==12)) if(6==12) 6 Tied	foo(6,12,6) if(6==12) 6 Tied!