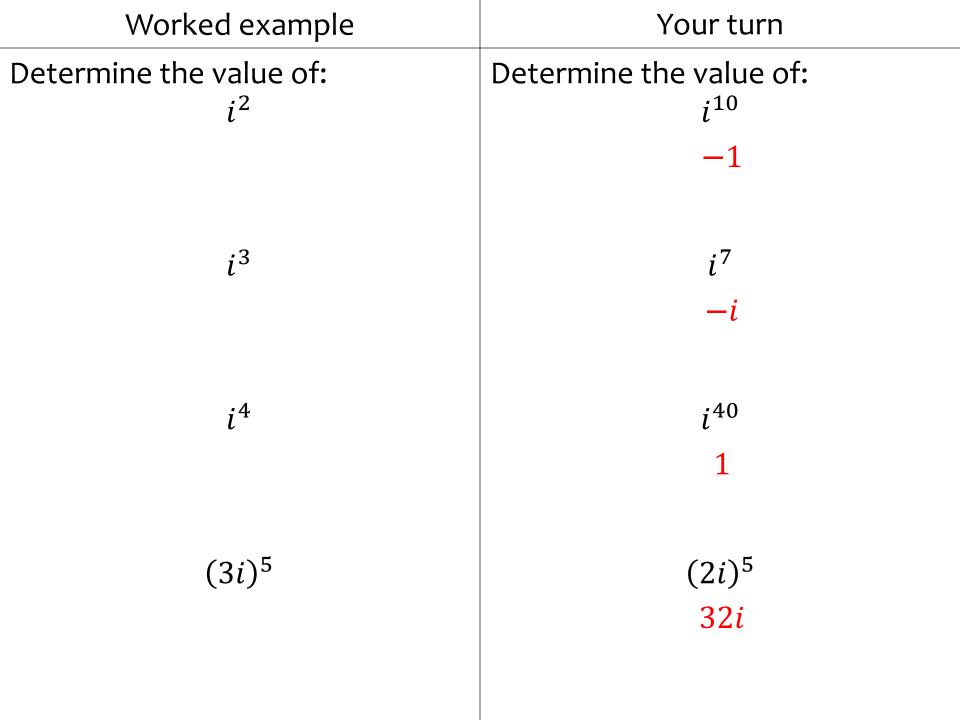
1.2) Multiplying complex numbers



Worked example	Your turn
Determine the value of: $i^{101}$	Determine the value of: $i^{10007}$ $-i$
$i^{202}$	
$i^{3003}$	

Worked example	Your turn
Express each of the following in the form $a + bi$ , where $a, b$ are integers: $(2 + 3i)(2 - 3i)$	Express each of the following in the form $a + bi$ , where $a, b$ are integers: $(4 + 5i)(4 - 5i)$
	29
(2+3i)(3+2i)	(4+5i)(5+4i)
	41 <i>i</i>
$(2-3i)^2$	$(4-5i)^2$
	41-40i

Worked example	Your turn
Simplify, giving your answer in the form $a + bi$ :	Simplify, giving your answer in the form $a + bi$ :
$(1+i)^3$	$(1+i)^5$
	-4-4i
$(1+i)^4$	

Given that 
$$(a + 5i)(1 + bi) = 22 - 16i$$
, find the values of  $a$  and  $b$ 

Your turn

$$a = 7, b = -3$$
  
 $a = 15, b = -\frac{7}{5}$