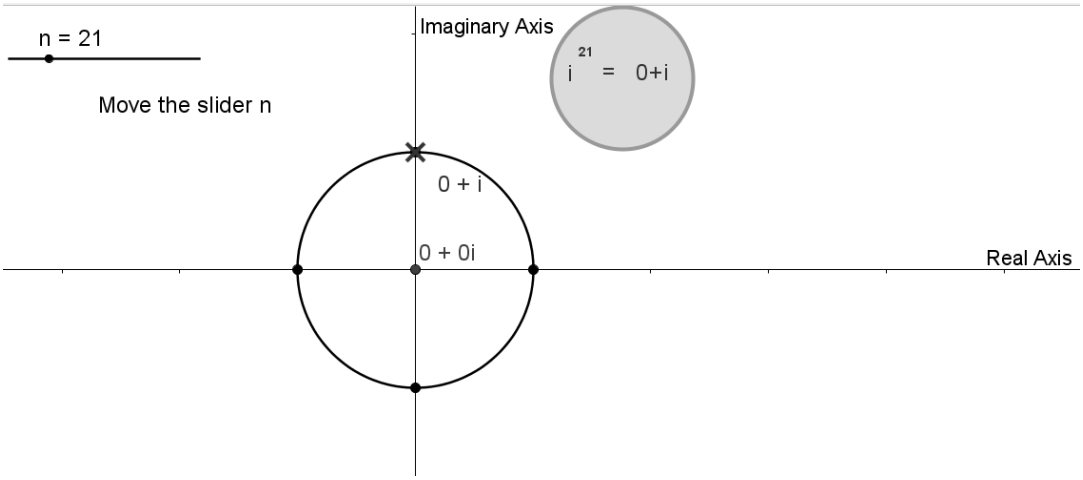
Student Activity: To investigate i^n

Use in connection with the interactive file, 'i to the power of n', on the Student's CD.



1. Using the interactive file calculate each of the following:

		Answer
a.	i^2	
b.	i^3	
c.	i^4	
d.	i^5	
e.	i^6	
f.	i^7	
g.	i^8	
h.	i^{20}	
i.	i^{21}	
j.	i^{22}	
k.	i^{23}	

l.	i^{200}	
m	i^{201}	
n.	$i^4 \times i^2$	
o.	i^4 / i^2	
p.	i^0	
q.	$i^4 \times i^0$	

2. Multiplying by i causes a rotation of how many degrees?

_____

3. Multiplying by i^2 causes a rotation of how many degrees?

_____

4. Multiplying by i^3 causes a rotation of how many degrees?

_____

5. Multiplying by i^4 causes a rotation of how many degrees?

_____

6. Based on your previous answers outline a general rule for calculating i^n ?

_____

_____

7. For all values of n, what is the distance of i^n from the origin?

_____

_____