**Trigonometrical form of complex number**

1. **E.g.**

Z1=2+2i

* Calculate the length of vector using Pythagoras theorem (

|Z|===2

* Find angle between real axis and vector using trigonometrical function

=⇒ φ=;=⇒ φ=

* Put calculate value to the formula **z(cos φ +i\*sin φ)**

Z1= 2 (cos +i\*sin )

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1. **E.g**

Z2=4+4i

* Calculate the length of vector(modulus) using Pythagoras theorem

(

|Z|===8

* Find angle between real axis and vector using trigonometrical function

=⇒ φ=;=⇒ φ=

* Put calculate value to the formula **z(cos φ +i\*sin φ)**

Z2= 8 (cos +i\*sin )

Transform Complex number to trigonometrical form:

1. 1+i
2. 5+
3. -3i
4. −5+i
5. -i)2
6. ((5)\*)+i

Solutions:

1. (cos +i\*sin )
2. 10(cos +i\*sin )
3. (cos +i\*sin )
4. (cos +i\*sin )
5. (cos +i\*sin )
6. 2(cos +i\*sin )