

### Answer on Question #58284 – Math – Complex Analysis

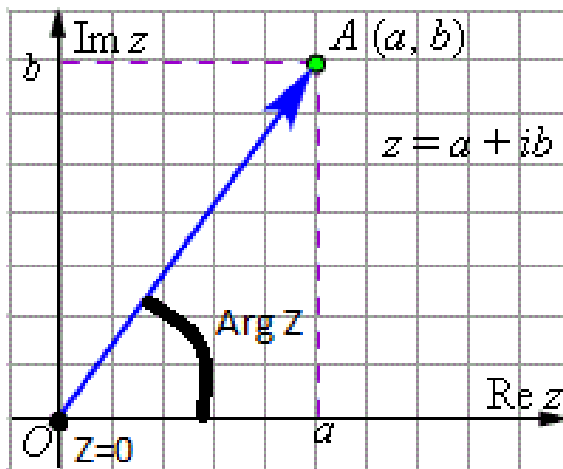
#### Question

If  $z = 0$  and  $|z| = 0$ , then the argument is ...

#### Solution

If  $z = 0$ , then  $x=0, y=0$  and the argument is not defined, because the argument is the angle between the x-axis and the vector through points  $(0,0), (a, b)$  ( $z=a+ib$ ).

If  $|z| = 0$ , then  $\sqrt{x^2 + y^2} = 0$ , that is, we have a point, where  $x = 0$  and  $y = 0$ . The angle between this point and a straight line OX is not defined.



**Answer:** not defined.