



Theoretical Mechanics, Quiz 5: COMPLEX

Complex motion

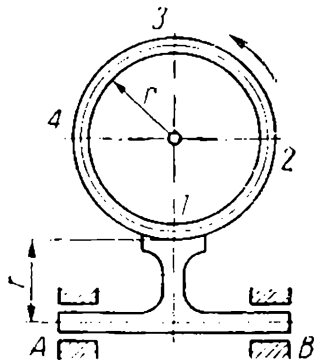
Quiz 5

A hollow ring of radius r is rigidly fixed to a shaft AB (look at the figure).

The ring contains a fluid moving in the clockwise direction with constant relative velocity u .

The shaft AB rotates in a clockwise direction, if we consider the axis of rotation from A to B . $\omega = \text{const}$ — angular velocity of the shaft.

Find full accelerations of the particles of the fluid at points 1—4.



Quiz 5, Task 1