Reference circle

Questions

1. Is the body (red coloured dot) executing SHM? Give reasons.
2. Are the motions of the body, P_1 and P_2 periodic in nature?
3. Is the foot of perpendicular on the y-axis (P_1) executing SHM?
4. Is the foot of perpendicular on the x-axis (P_2) executing SHM?
5. Is it possible to ascertain that P_1 and P_2 are executing SHM only by observing their motion (without calculations)?
6. Are the points P_1 and P_2 oscillating in phase?
7. Is $x + y = A$?

Note :

Questions given above may be visualized and solved using the simulations, obtaining a mathematical solution is to be always treated as the final answer. Such a mathematical solution implies that one is able to understand and apply the concept.