Are we in learn?

In the discussion after mechanics part-1

1. What is mechanics?
2. Why we are learning mechanics?
3. What is reference point and reference frame?
4. Why reference point and reference frame are important?
5. Reference frame for dimensions and motion in dimension
6. One dimension to two dimension
7. Projectile, projectile motion and trajectory
8. Why x-axis velocity has no changes and y-axis velocity changes with time in projectile motion
9. What is maximum height, time to maximum height, time to reach maximum distance (Range) and maximum distance (Range)
10. Practice on projectile related examples!

Problem Practice for understanding:

1. A Cricket player kicks a ball at an angle of 450 from the horizontal with an initial speed of 25m/s. Assume that the ball moves in a vertical plane
2. When the ball will reach the highest point of its trajectory?
3. How high does the ball go?
4. When the ball will strike the ground?
5. What is the horizontal range of the ball?
6. A fielder 60m directly away from the strike of the ball would like to catch the ball, Find the velocity of the fielder.
7. A bomber is flying at a constant horizontal velocity of 1000 km/hr at an elevation of 2000m directly above its target. At what angle of sight should a bomb be released to strike the target? (g= 9.8 m/s2)