

- 10** Two planets X and Y travel anticlockwise in circular orbits about a star. The radii of their orbits are in the ratio 3:1.

Diagram 1 shows the positions of X and Y at time $t = 0$. They are aligned such that they make a straight line with the star.

Diagram 2 shows the position of X at a later time $t = t_1$. The angular displacement of planet X is 90° from its initial position.

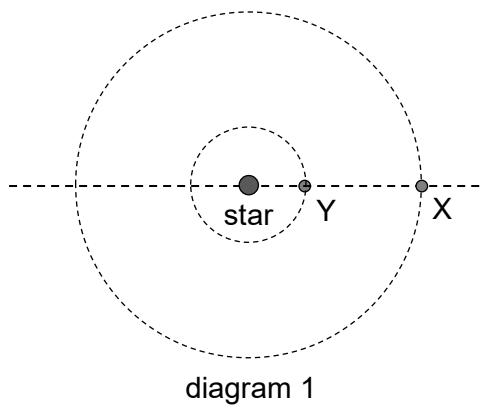


diagram 1

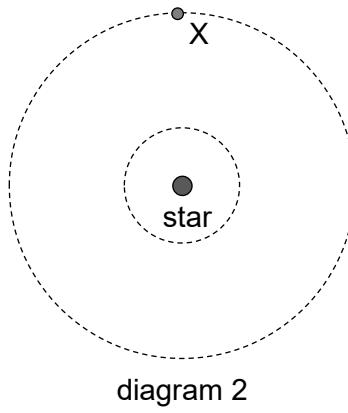


diagram 2

Which diagram shows the position of planet Y at time $t = t_1$?

