

Parametric Equations



Question

If a and b are positive constants, then $x = a \cos(bt)$, $y = a \sin(bt)$ describes the motion of a particle orbiting counterclockwise about the origin. Which transformation of the motion is *not* correctly identified?

- A. If a is doubled, then the radius of the orbit is doubled.
- B. If b is doubled, the time to complete one orbit is doubled.
- C. If the sign of a is changed, then the particle orbits clockwise.
- D. If the sign of b is changed, then the particle orbits clockwise.
- E. More than one of the above is incorrect.