

- 10** A sphere moves in a horizontal circle with constant angular speed.

What is its linear speed and its centripetal acceleration when the radius of the horizontal circle is halved and angular speed is doubled?

|          | linear speed | centripetal acceleration |
|----------|--------------|--------------------------|
| <b>A</b> | halved       | constant                 |
| <b>B</b> | halved       | doubled                  |
| <b>C</b> | constant     | constant                 |
| <b>D</b> | constant     | doubled                  |