

$$F_c = \frac{m v^2}{r}$$

1. Centripetal forces are always directed toward the (center, outside) of a circle.
2. If the velocity of a car is halved, the F_c required to keep it in a path of constant radius is (multiplied, divided) by _____.
3. What furnishes the centripetal force required to keep a satellite circling the earth?

If the same satellite orbited at the same velocity around a planet with three times the force of gravity, the orbit radius would be (multiplied, divided) by _____.

4. If the velocity, radius, and mass are simultaneously doubled, the required centripetal force will be (multiplied, divided) by _____.
5. If the centripetal force exerted on an object is multiplied by four, and the velocity of the object is doubled, the radius of the circle will _____.