PhysicsIn5.com Answers (5.01 - Uniform Circular Motion)

| 1 | В |
|---|--|
| | If an object is traveling in a circle, its direction is always changing. Because velocity considers direction, its velocity is then always changing. This is true whether the object is speeding up, slowing down, or moving with constant speed. Acceleration is defined as the 'rate of change in velocity.' Since velocity is changing, the object is accelerating. |
| 2 | A |
| | At position A, FN points to the center of the circle (FN > Fg) At position B, there is no circular path (FN = Fg) At position C, Fg points to the center of the circle (FN < Fg) |
| 3 | D |
| | Net force always points to the center of the object's circular path |
| 4 | С |
| | Acceleration always points to the center of the object's circular path |
| 5 | A |
| | Velocity always points tangent to the object's circular path |