

The nearly circular orbits of planets in our solar system led scientists to expect that planets around other stars would also reside in circular orbits. However, most known extrasolar planets reside in highly elongated, not circular, orbits. Why? The best clue comes from comets in our solar system. Comets formed in circular orbits but were gravitationally flung into their present-day elliptical orbits when they ventured too close to planets. Astronomers suspect that pairs of planets also engage in this slingshot activity, leaving them in disturbed, elliptical orbits. If two planets form in close orbits, one will be scattered inward (toward its star), the other outward. They will likely then travel close enough to neighboring planets to disturb their orbits also.

**For the following question, consider each of the choices separately and select all that apply.**

1. According to the passage, which of the following factors help account for the elliptical shape of the orbits of extrasolar planets?
  - A. The planets' formation in close proximity to other planets
  - B. The gravitational influence of planets whose original orbits have been disturbed
  - C. The gravitational influence of comets

**For the following question, consider each of the choices separately and select all that apply.**

2. The passage suggests that two planets formed in close orbits that engaged in "slingshot activity" (line 6) would be likely to
  - A. deflect away from each other
  - B. change the shape of each other's orbit
  - C. affect the orbits of any neighboring planets