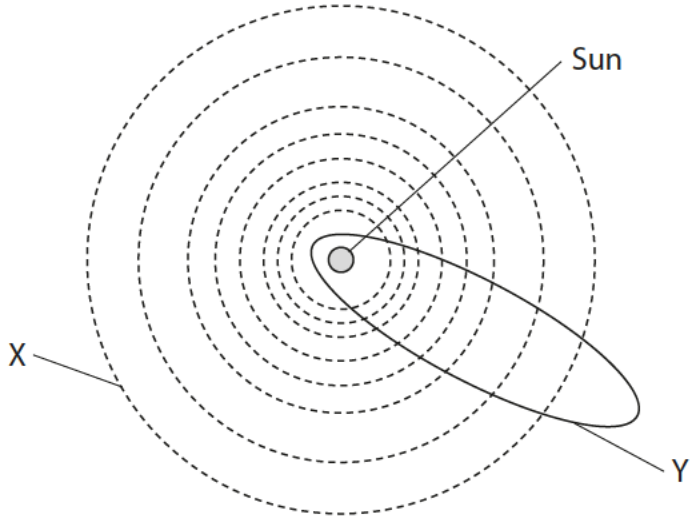
1 The diagram shows the orbits of some objects in the Solar System.



(a) (i) Path X is the orbit of a

(1)

- ☒ **A** comet
- ☒ **B** galaxy
- ☒ **C** planet
- ☒ **D** star

(ii) Path Y is the orbit of a

(1)

- ☒ **A** comet
- ☒ **B** galaxy
- ☒ **C** planet
- ☒ **D** star

(b) The objects are held in orbit by

(1)

- ☒ **A** electrostatic force
- ☒ **B** frictional force
- ☒ **C** gravitational force
- ☒ **D** magnetic force

(Total for Question 1 = 3 marks)

2 Planets and comets in our Solar System orbit the Sun.

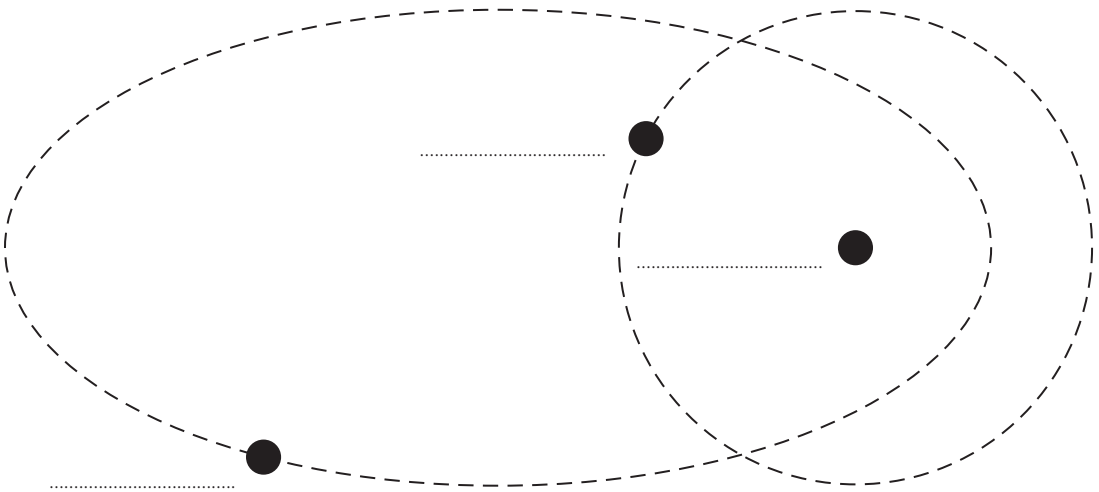
(a) Which force causes planets and comets to orbit the Sun?

(1)

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(b) The diagram shows the orbits of a planet and a comet around the Sun.

[not to scale]



(i) On the diagram, label the planet, the comet and the Sun.

(1)

(ii) Explain why it is possible for a planet and a comet in our Solar System to collide.

(2)

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(Total for Question 2 = 4 marks)