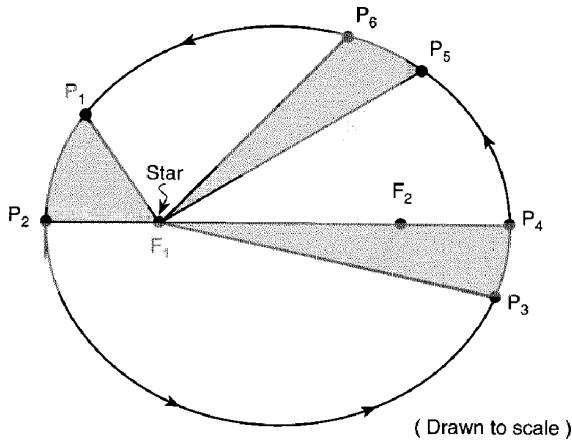


Eccentricity

Name: _____

Date: _____

1. Base your answer(s) to the following question(s) on the *Earth Science Reference Tables*, the diagram below, and your knowledge of Earth science. The diagram represents a planet, P , in an elliptical orbit around a star located at F_1 . The foci of the elliptical orbit are F_1 and F_2 . Orbital locations are represented by P_1 through P_6 .

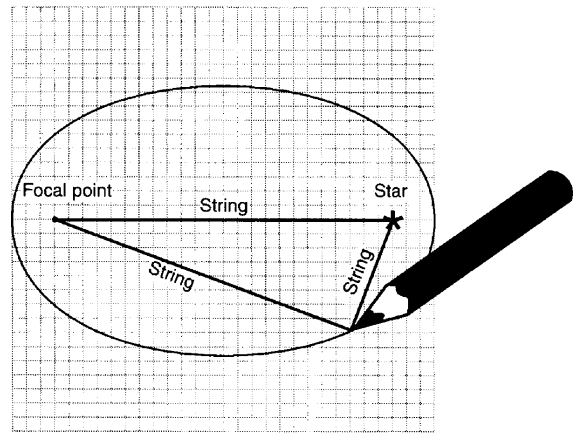


What is the approximate eccentricity of planet P 's orbit?

- A. .52 B. .83 C. 2.11 D. 4.47

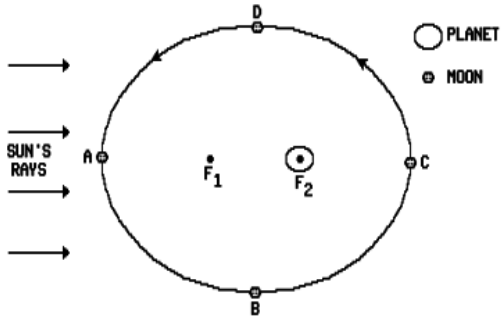
2. Base your answer(s) to the following question(s) on the *Earth Science Reference Tables* and your knowledge of Earth science.

The accompanying diagram represents the construction of a model of an elliptical orbit of a planet traveling around a star. The focal point and the center of the star represent the foci of the orbit.



The eccentricity of this orbit is approximately

- A. 1.3 B. 0.8 C. 0.5 D. 0.3



3. If the distance from F_1 to F_2 is 42,000 kilometers and the distance from A to C is 768,000 kilometers, what is the eccentricity of the moon's orbit?

- A) 0.055
- B) 0.81
- C) 0.94
- D) 0.18

4. As the moon moves in its orbit from point D to point B, the force of gravitational attraction between the moon and the planet

- A) increases, then decreases
- B) decreases, only
- C) increases, only
- D) decreases, then increases

5. The actual shape of the Earth's orbit around the Sun is best described as

- A) a slightly eccentric ellipse
- B) an oblate spheroid
- C) a perfect circle
- D) a very eccentric ellipse

6. What is the eccentricity of the Moon's orbit?

- A) 0.017
- B) 0.055
- C) 0.386
- D) 0.723

7. Which planet has the least distance between the two foci of its elliptical orbit?

- A) Venus
- B) Earth
- C) Mars
- D) Jupiter

Eccentricity 4/9/2018

1.
Answer: A

2.
Answer: B

3.
Answer: A

4.
Answer:

5.
Answer: A

6.
Answer:

7.
Answer: