Circular and Planetary Motion — Practice Test

Prince Edward Island Physics 12 • 10 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Frequency and period are related by frequency equals**

- A period²
- B 1/period
- C period
- D 2 π × period

Understand It with Pulse | Flag a mistake

2 **Increasing orbital radius while keeping speed constant**

A decreases centripetal acceleration

B increases centripetal acceleration

C leaves it unchanged

D makes it zero

Understand It with Pulse | Flag a mistake

3 **Universal gravitation acts between**

A charges only

B planets only

C stars only

D any two masses

Understand It with Pulse | Flag a mistake

4 **An object completes 30 revolutions in 10 seconds. Its frequency in hertz is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **An object with period 2 seconds has frequency in hertz as a decimal is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **An object moves in a circle at speed 8 metres per second with radius 4 metres. Its centripetal acceleration in metres per second squared is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **Tripling the separation between two masses reduces gravitational force to this fraction, as a decimal rounded to four decimal places, of the original**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **An object moves in a circle at speed 9 metres per second with radius 3 metres. Its centripetal acceleration in metres per second squared is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A 2 kilogram object in circular motion at 6 metres per second with radius 4 metres needs centripetal force in newtons of**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **An object with period 10 seconds has frequency in hertz as a decimal is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	B	**5.**	0.5	**9.**	18
2.	A	**6.**	16	**10.**	0.1
3.	D	**7.**	0.1111		
4.	3	**8.**	27		

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