Circular and Planetary Motion — Practice Test

Newfoundland and Labrador Physics 3204 • 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 **Tides on Earth are mainly caused by the gravitational pull of the**

- A Sun only
- B Moon
- C planets
- D Earth core

Understand It with Pulse | Flag a mistake

2 **Kepler laws apply most directly to motion under**

A friction

B magnetism

C gravity

D electric force

Understand It with Pulse | Flag a mistake

3 **A satellite in a higher orbit has a longer period and a**

A higher speed

B same speed

C zero speed

D lower speed

Understand It with Pulse | Flag a mistake

4 **Centrifugal force in a rotating frame is a fictitious effect, not a real force acting on the object in an**

A inertial frame

B vacuum

C orbit

D laboratory only

Understand It with Pulse | Flag a mistake

5 **A mass moves at 10 metres per second in a circle of radius 5 metres. Its centripetal acceleration in metres per second squared is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A mass of 4 kilograms moves at 3 metres per second in a circle of radius 3 metres. The centripetal force in newtons is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A wheel period is 0.5 seconds. Its frequency in hertz is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A car rounds a curve of radius 50 metres at 20 metres per second. Its centripetal acceleration is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **Gravitational force is 200 newtons. If distance doubles, the new force in newtons is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **A planet radius factor is 9. Its period factor by Kepler third law is**

ANSWER _____

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	B	**5.**	20	**9.**	50
2.	C	**6.**	12	**10.**	27
3.	D	**7.**	2		
4.	A	**8.**	8		

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