**PHYSICS 11 FORMULAE**

*Wave Motion and Geometrical Optics* *Energy*

   

   

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*Kinematics*

  *Special Relativity*

   

 

  



*Forces and Dynamics*

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**FUNDAMENTAL CONSTANTS AND PHYSICAL DATA**

 Gravitational constant...............................................................*G* = 6.67 x 10-11Nm2/kg2

Speed of Light...........................................................................*c* = 3.00 x 108 m/s

Earth

 radius............................................................................. = 6.38 x 106 m

mass.............................................................................. = 5.98 x 1024 kg

acceleration due to gravity at the surface of Earth

 (for the purposes of this examination).......................*g* = 9.80 x m/s2

period of rotation..... .......... ............................................ = 8.61 x 104 s

radius of orbit around Sun ............................................. = 1.50 x 1011 m

period of orbit around Sun.............................................. = 3.16 x 107 s

 Moon

 radius............................................................................. = 1.74 x 106 m

 mass.............................................................................. = 7.35 x 1022 kg

 period of rotation............................................................ = 2.36 x 106 s

 radius of orbit around Earth............................................ = 3.84 x 108 m

period of orbit around Earth............................................ = 2.36 x 106 s

 Sun

 mass............................................................................. = 1.98 x 1030 kg