

$$\text{Fobos: } r_F = 9377 \text{ km}$$

$$T_F = 7,66 \text{ h}$$

$$\text{Deimos: } r_D = 23460 \text{ km}$$

$$T_D = ?$$

Utilitzant la 3a llei de Kepler:

$$T_D^2 = C r_D^3$$

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Dividim ambdues equacions m. a m. i obtenim:

$$\left(\frac{T_D}{T_F}\right)^2 = \left(\frac{r_D}{r_F}\right)^3$$

d'aquí:

$$T_D = \sqrt{\left(\frac{r_D}{r_F}\right)^3} \cdot T_F = \sqrt{\left(\frac{23460}{9377}\right)^3} \cdot 7,66 \text{ h}$$

$$T_D = 3,96 \cdot 7,66 \text{ h} = \boxed{30,31 \text{ h}}$$