$M_S = 5,69 \times 10^{26} kg$ massa de Saturn

$M_m = 3,8 \times 10^{19} kg$ massa de Mimas.

$R_m = 1,96 \times 10^5 m$ radi de Mimas.

$r = 1,86 \times 10^8 m$ radi de l'òrbita de Mimas.

$$T^2 = \frac{4\pi^2}{GM_S} \cdot r^3$$

$$T = \sqrt{\frac{4\pi^2}{GM_S} r^3} = \sqrt{\frac{4\pi^2 (1,86\times10^8)^3}{6,67\times10^{-11} \cdot 5,69\times10^{26}}} = 81815 s = 22h\ 43'$$

Sobre la superfície de Mimas:

$$g = \frac{GM_m}{R_m^2} = \frac{6,67\times10^{-11} \cdot 3,8\times10^{19}}{(1,96\times10^5)^2} = \boxed{0,07\ m/s^2}$$

La velocitat d'escapament:

$$V_e = \sqrt{\frac{2GM_m}{R_m}} = \boxed{160\ m/s}$$