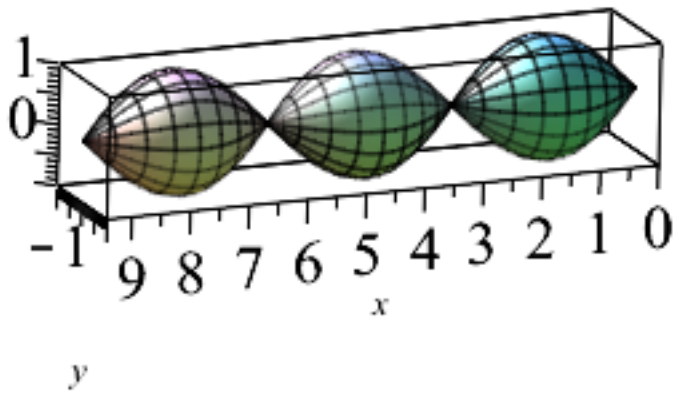
>

実習20.2

(1)

> $plot3d([s, \sin(s)\cdot\cos(t), \sin(s)\cdot\sin(t)], s=0..3\cdot\mathrm{Pi}, t=0..3\cdot\mathrm{Pi})$



(2)

> $\mathrm{Pi}\cdot int((\sin(t))^2, t=0..3\cdot\mathrm{Pi})$

$$\frac{3\pi^2}{2} \quad (1)$$

(3)

> $2\cdot\mathrm{Pi}\cdot int(\mathrm{sqrt}(1+(diff(\sin(t), t))^2)\cdot\mathrm{abs}(\sin(t)), t=0..3\cdot\mathrm{Pi})$

$$2\pi\left(3\sqrt{2}+3\ln\left(1+\sqrt{2}\right)\right) \quad (2)$$

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