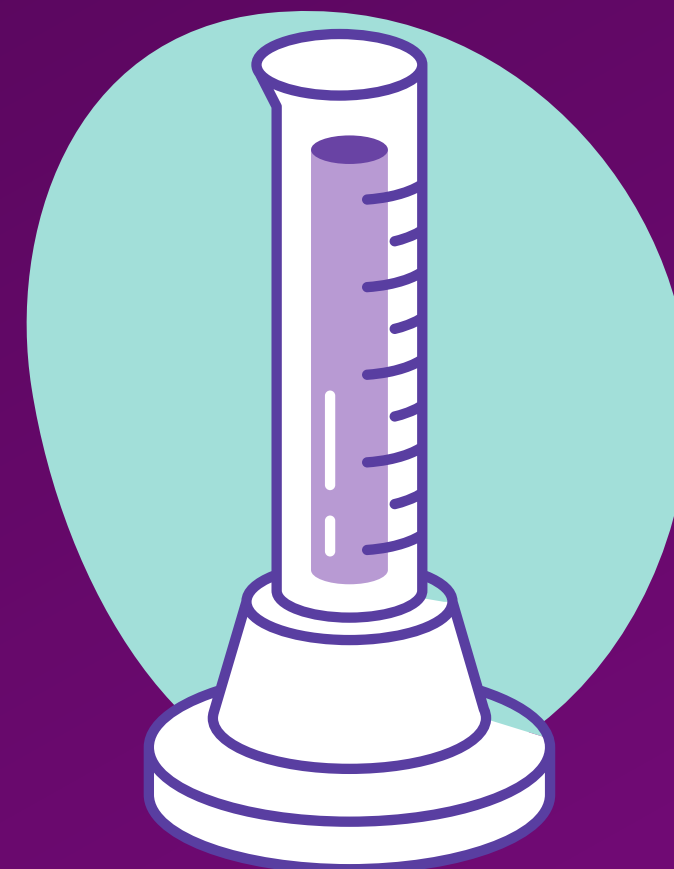
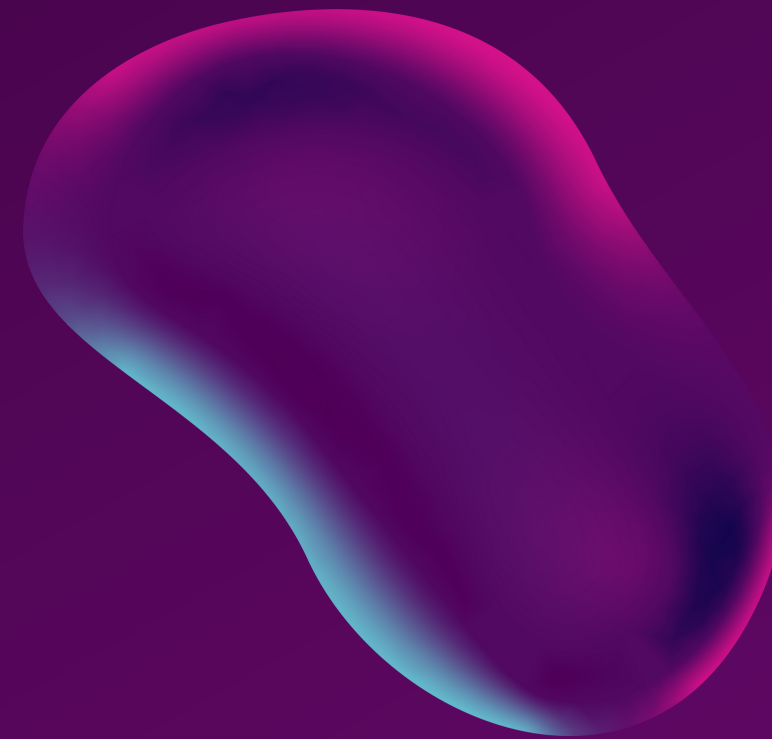
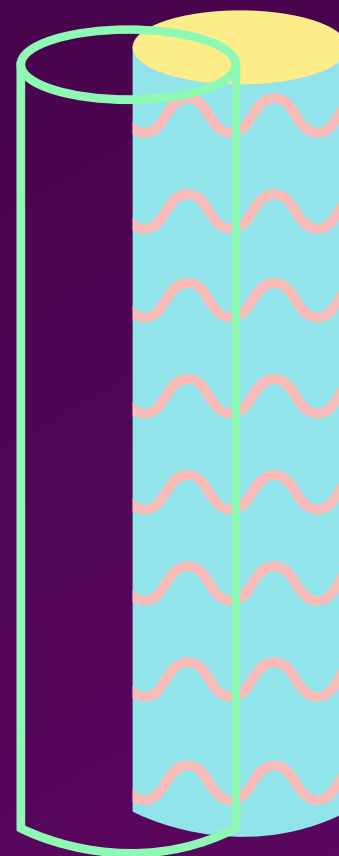
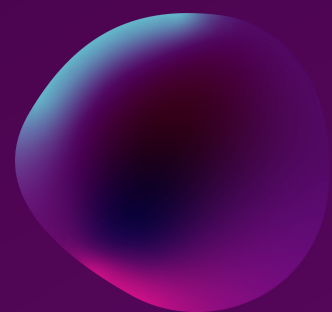


Lucrare practică

CILINDRUL CIRCULAR



Profesor: Bîzga Angela
A realizat Begal Alexandrina

Condiția problemei

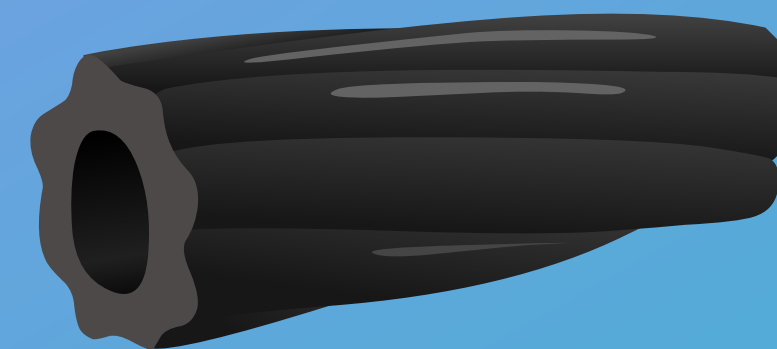
Capacitatea de încărcare a unui camion este de 3,5 tone.

Să se afle numărul maxim de țevi pe care le poate

transporta camionul, dacă țevile sunt confecționate din plumb,

lungimea lor este de 4 m, diametrul exterior al țevelor este de

16 cm, diametrul lor interior este de 12 cm, iar densitatea plumbului este de $11,38 \text{ g/cm}^3$ (considerăm $\pi = 3,14$).



SE DĚ:

$$V=3,5 \text{ t}=3500 \text{ kg}$$

$$l=H=4 \text{ m}$$

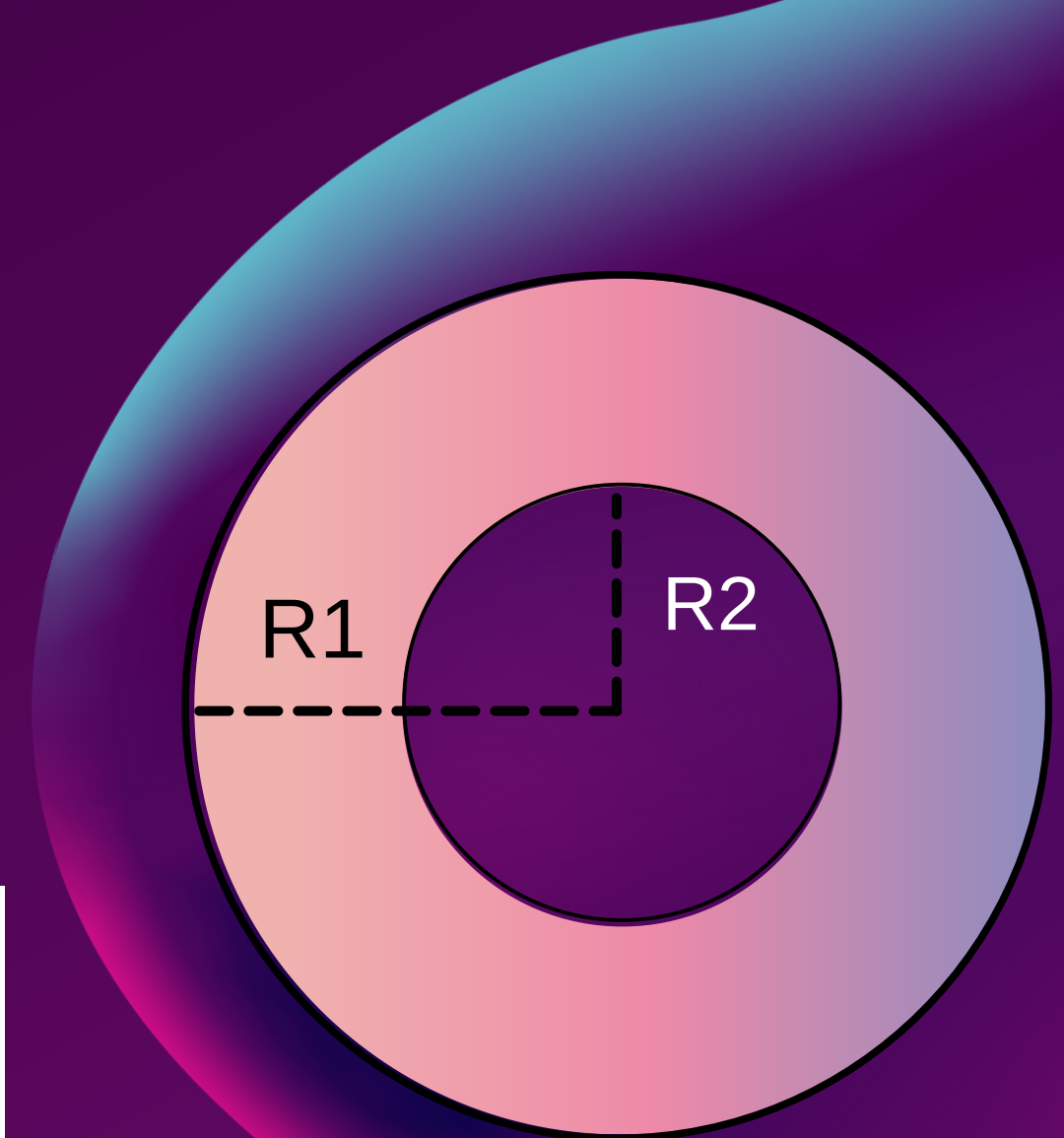
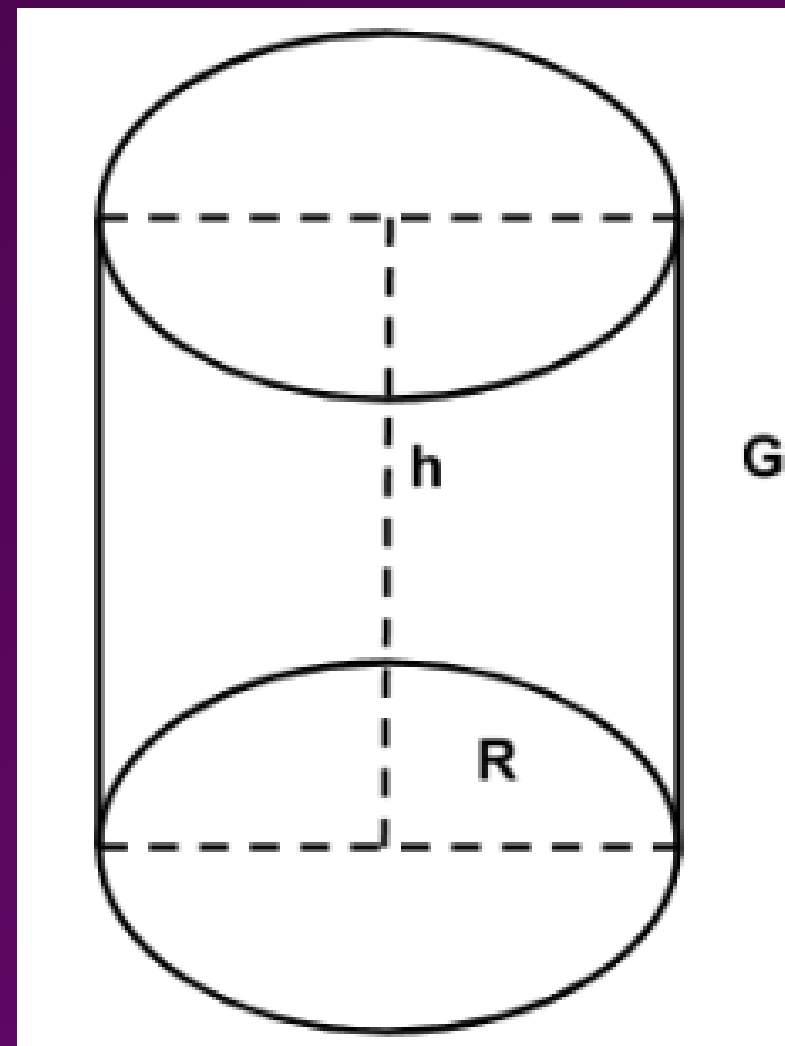
$$d_1=16 \text{ cm}=0,16 \text{ m}$$

$$d_2=12 \text{ cm}=0,12 \text{ m}$$

$$\rho=11,38 \text{ g/cm}^3$$

$$\pi=3,14$$

$$N=?$$



REZOLVARE

$$R_1 = \frac{d_1}{2} = \frac{0,16 \text{ m}}{2} = 0,08 \text{ m}$$

$$R_2 = \frac{d_2}{2} = \frac{0,12 \text{ m}}{2} = 0,06 \text{ m}$$

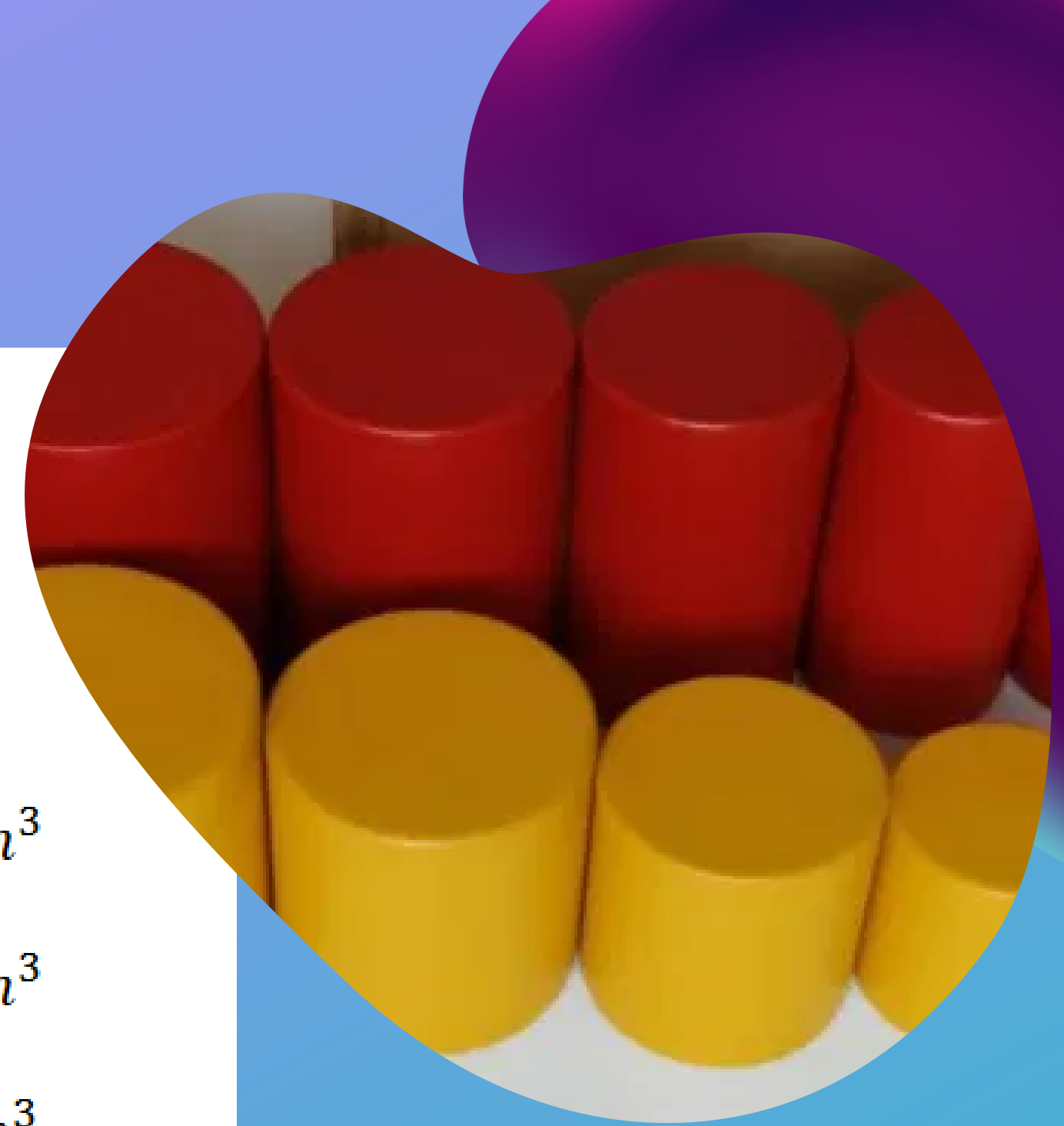
$$V_1 = \pi R_1^2 H \approx (0,08)^2 \times 4 \text{ m} \times 3,14 = 0,080384 \text{ m}^3$$

$$V_2 = \pi R_2^2 H \approx (0,06)^2 \times 4 \text{ m} \times 3,14 = 0,045216 \text{ m}^3$$

$$V = V_1 - V_2 = 0,080384 - 0,045216 = 35168 \text{ cm}^3$$

$$V \times \rho = 11,38 \frac{\text{g}}{\text{cm}^3} \times 35168 \text{ cm}^3 = 400211,84 \text{ g} = 400,211 \text{ kg}$$

$$\frac{3500 \text{ kg}}{400,211 \text{ kg}} = 8,74 \approx 8 \text{ țevi}$$



RĂSPUNS:

*Camionul poate
transporta maxim
8 țevi*

