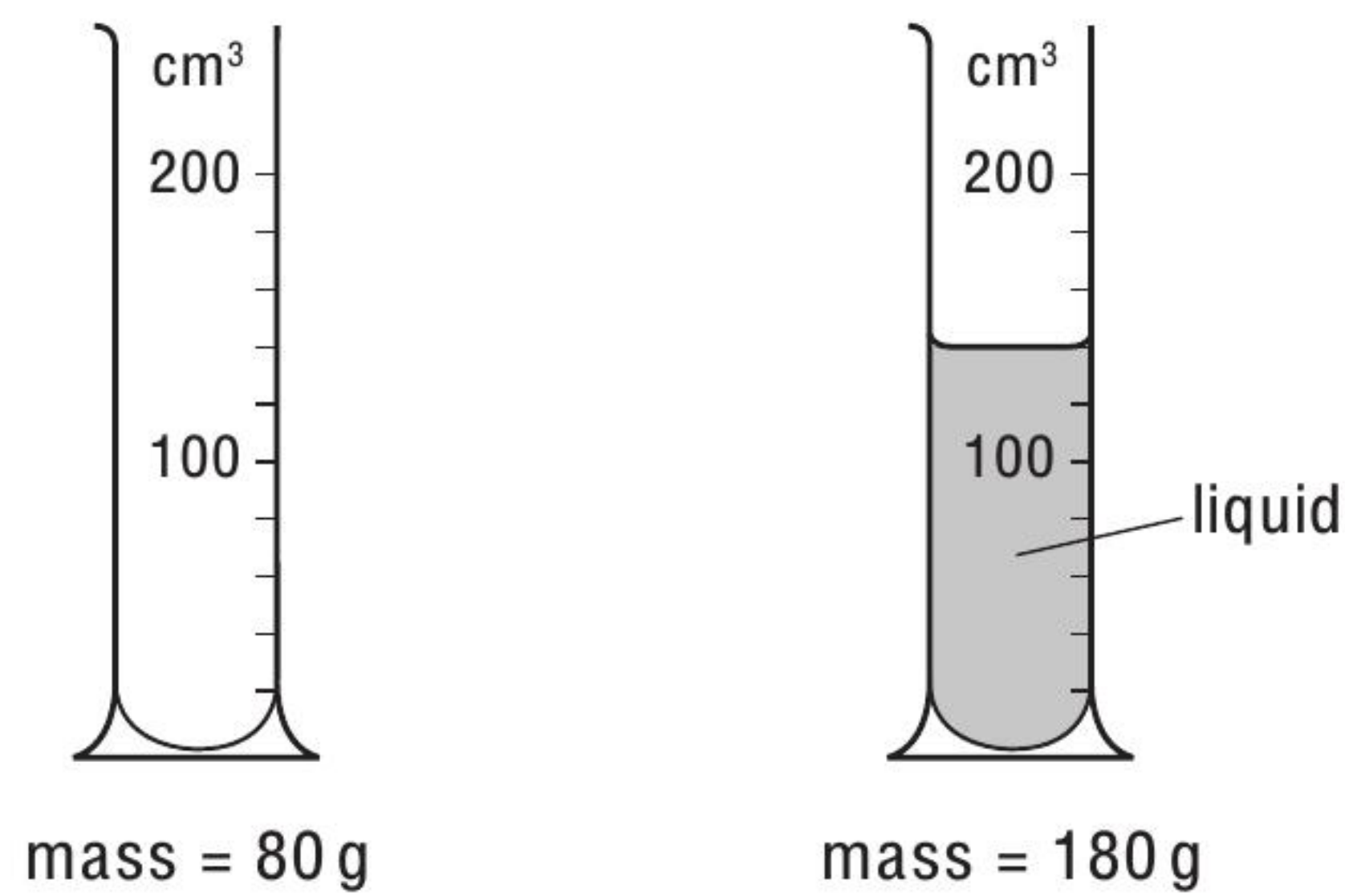
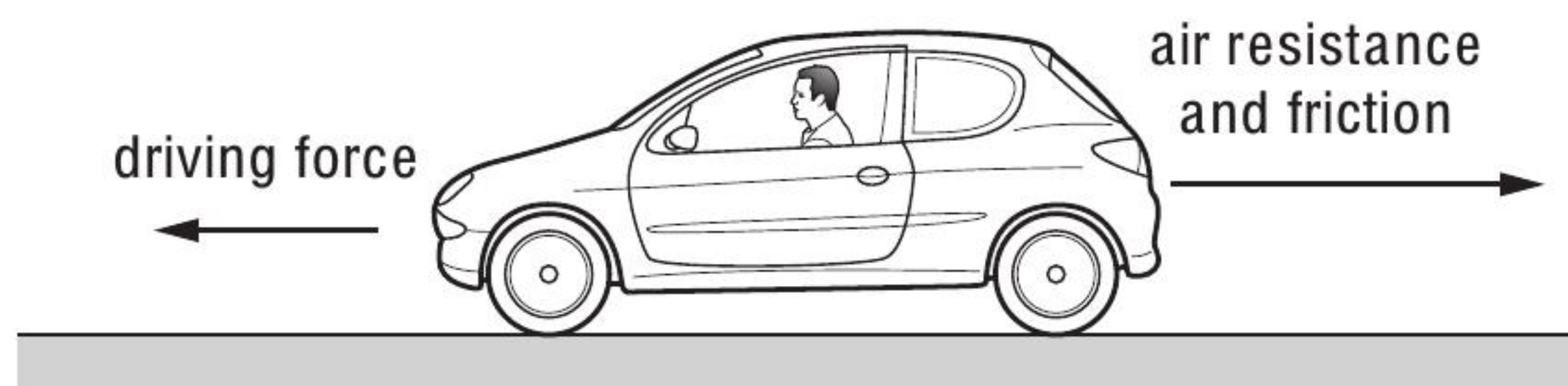


5. The masses of a measuring cylinder before and after pouring some liquid into it are shown in the diagram.



What is the density of the liquid?

- A** $\frac{100}{120} \text{ g/cm}^3$ **B** $\frac{100}{140} \text{ g/cm}^3$ **C** $\frac{180}{120} \text{ g/cm}^3$ **D** $\frac{180}{140} \text{ g/cm}^3$
6. A spring which obeys Hooke's Law has an unstretched length of 10 cm.
A load of 20 N is hung from the spring.
The new length of the spring is 36 cm.
What is the spring constant k of the spring?
- A** 0.56 N/cm **B** 0.77 N/cm **C** 1.3 N/cm **D** 1.8 N/cm
7. A car travels forwards along a straight horizontal road. Only the horizontal forces acting on it are shown.



The length of each arrow represents the size of each force.

How do these forces affect the motion of the car?

- A** The car moves at constant speed.
B The car moves backwards.
C The car slows down.
D The car's forward speed increases.