

- 13** In a large container in an oil refinery, three oils of different densities are mixed. No chemical activity occurs.

The mixture consists of

1200 kg of oil of density  $1100 \text{ kg m}^{-3}$ ,

1500 kg of oil of density  $860 \text{ kg m}^{-3}$ ,

4000 kg of oil of density  $910 \text{ kg m}^{-3}$ .

What is the density of the mixture?

- A**  $927 \text{ kg m}^{-3}$       **B**  $957 \text{ kg m}^{-3}$       **C**  $1010 \text{ kg m}^{-3}$       **D**  $1080 \text{ kg m}^{-3}$

- 14** Two coplanar forces act on the rim of a wheel. The forces are equal in magnitude