If Susan had not been wearing her seat belt and not had an air bag, then the windshield would have stopped her head in 0.0015 s. What average force would the windshield have exerted on her?

The second law states that the net force on an object is equal to the rate of change (that is, the derivative) of its linear momentum $\vec{p}$ in an inertial reference frame:

$$\vec{F} = \frac{d\vec{p}}{dt} = \frac{\Delta\vec{p}}{\Delta t}$$

Momentum equals:

$$p = mv$$

Suppose, Susan was in a car that was moving at $v = 80 \ km/h$ and mass of her head equals $m = 2 \ kg$.

Therefore, average force equals:

$$F = \frac{mv}{\Delta t} = \frac{80 \frac{km}{h} \ 2 \ kg}{0.0015 \ s} = \frac{80 \frac{m}{3.6 \ s} \ 2 \ kg}{0.0015 \ s} = 30 \ kN$$

Answer: $30 \ kN$