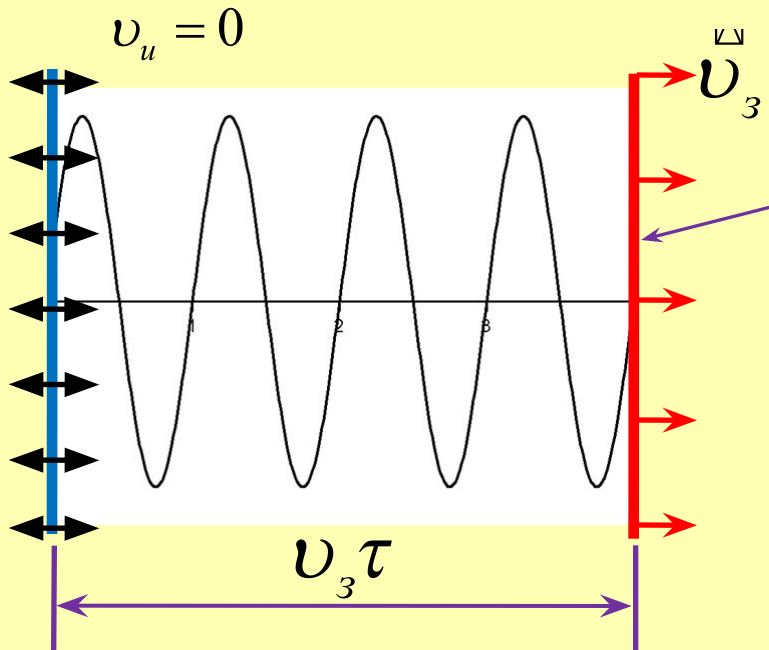
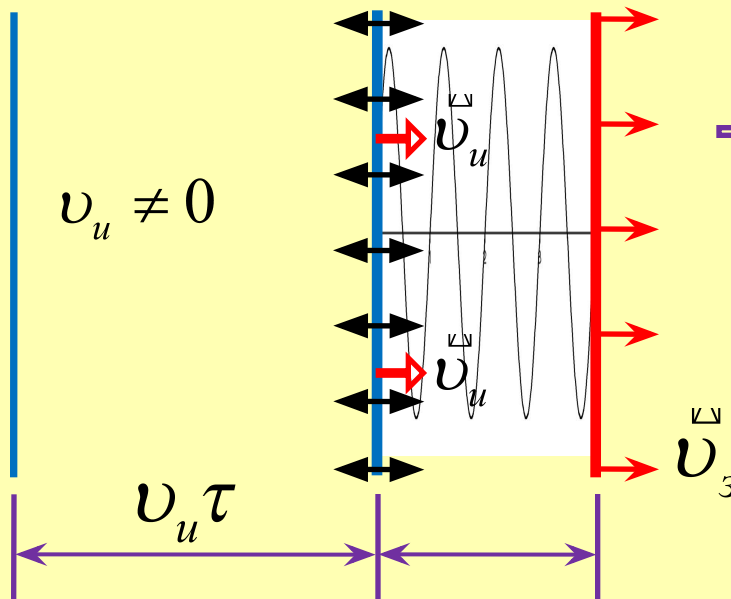


Эффект Доплера



$$\Rightarrow v_3 \tau = N \lambda_0$$

$$\frac{v_3 \tau}{(v_3 - v_u) \tau} = \frac{N \lambda_0}{N \lambda}$$

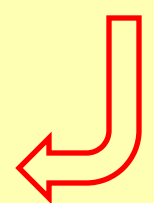


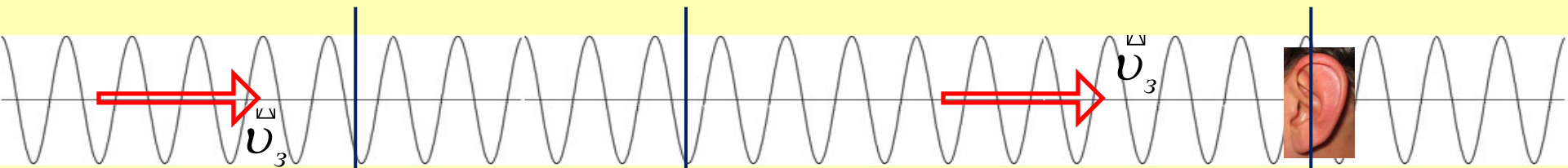
$$\Rightarrow (v_3 - v_u) \tau = N \lambda$$

$$\frac{v_3}{v_3 - v_u} = \frac{\lambda_0}{\lambda} = \frac{v}{v_0}$$

$$v = \frac{v_3}{v_3 - v_u} v_0$$

Положение фронта волны через τ секунд...





$$v_3 \cdot 1c$$

$$v_{np} = 0$$

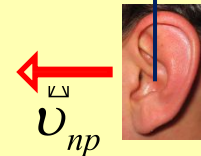
Кол-ия, воспринимаемые **неподвижным** приемником за 1 сек.

$$v = \frac{v_3 \cdot 1c}{\lambda} \quad (1)$$

$$v_{np} \cdot 1c$$

Кол-ия, воспринимаемые **подвижным** приемником за 1 сек.

$$v_{np} = \frac{(v_3 + v_{np}) \cdot 1c}{\lambda} \quad (2)$$



$$v_{np} \neq 0$$

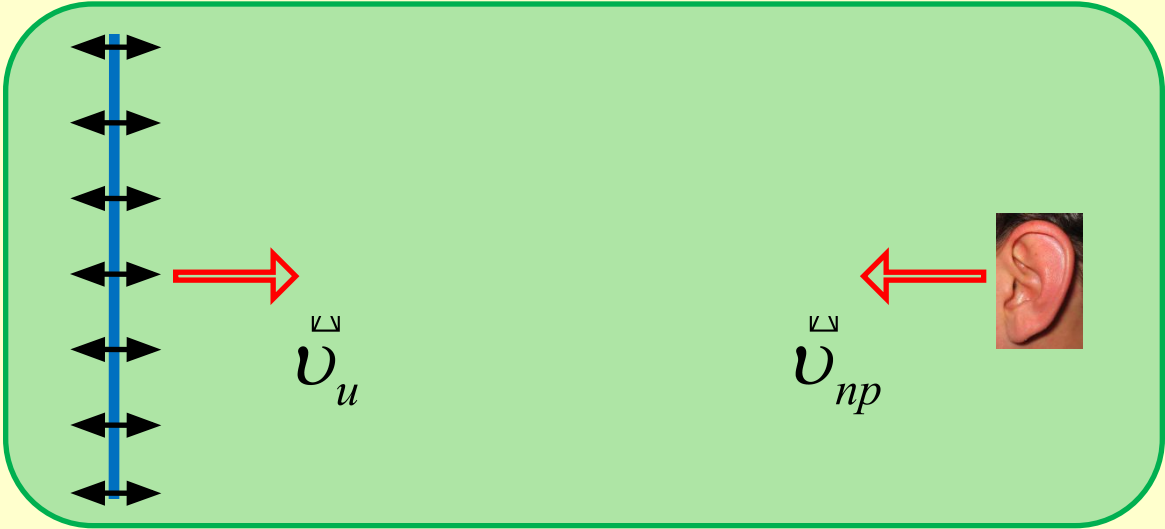
$$\frac{(2)}{(1)} \rightarrow \frac{v_{np}}{v} = \frac{v_3 + v_{np}}{v_3} \rightarrow$$

$$v_{np} = \frac{v_3 + v_{np}}{v_3} v$$

$$v_{np} = \frac{v_3 + v_{np}}{v_3} v$$

+

$$v = \frac{v_3}{v_3 - v_u} v_0$$



$$v_{np} = \frac{v_3 + v_{np}}{v_3 - v_u} v_0$$