

Prawo Snelliusa

Zasada Fermata

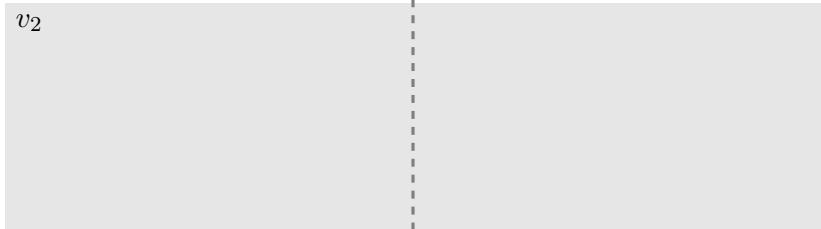
Zasada najmniejszego działania — droga promienia pomiędzy dwoma punktami to droga, która pokonywana jest w najkrótszym czasie

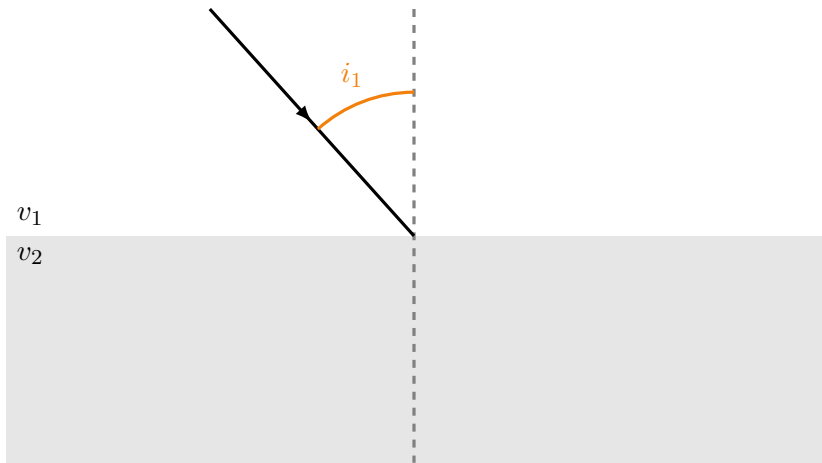
Prawo Snelliusa (Snell)

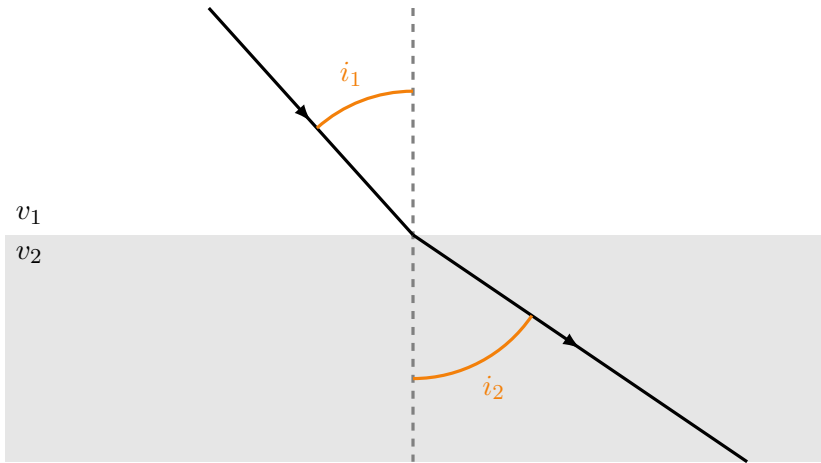
Prawo załamania światła, prawo refrakcji

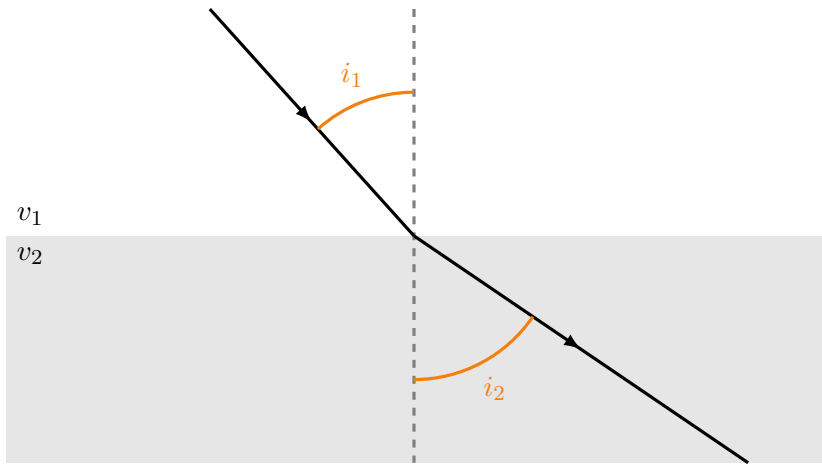
v_1

v_2

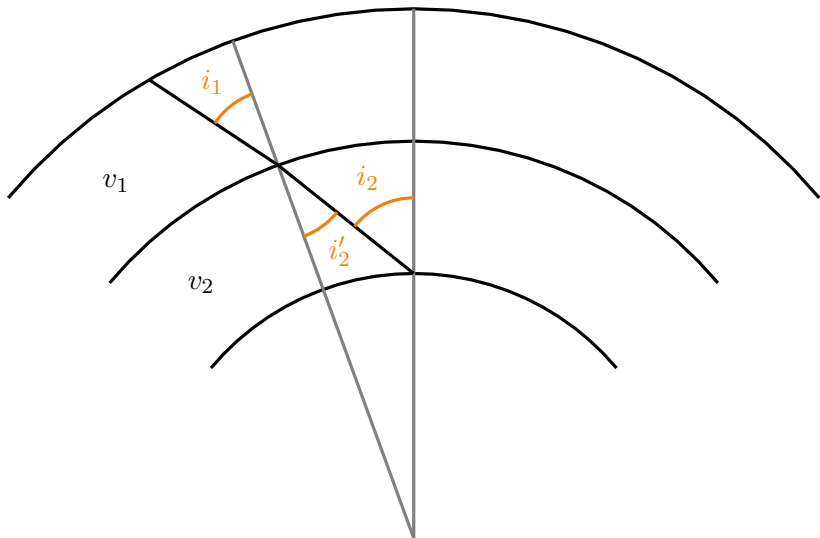


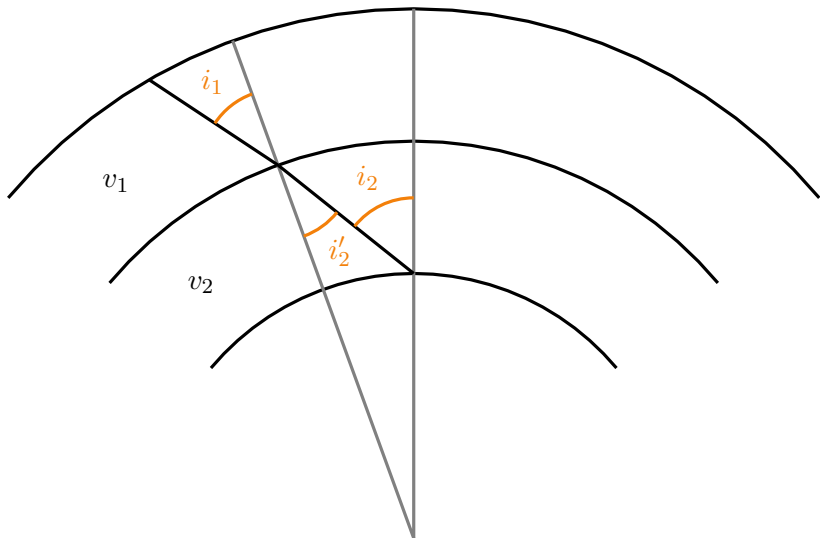




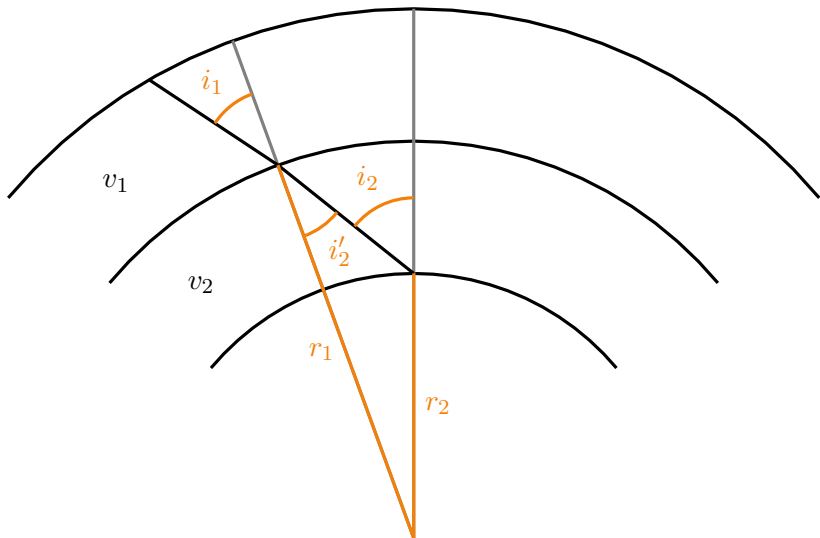


$$\frac{\sin i_1}{\sin i_2} = \frac{v_1}{v_2}$$

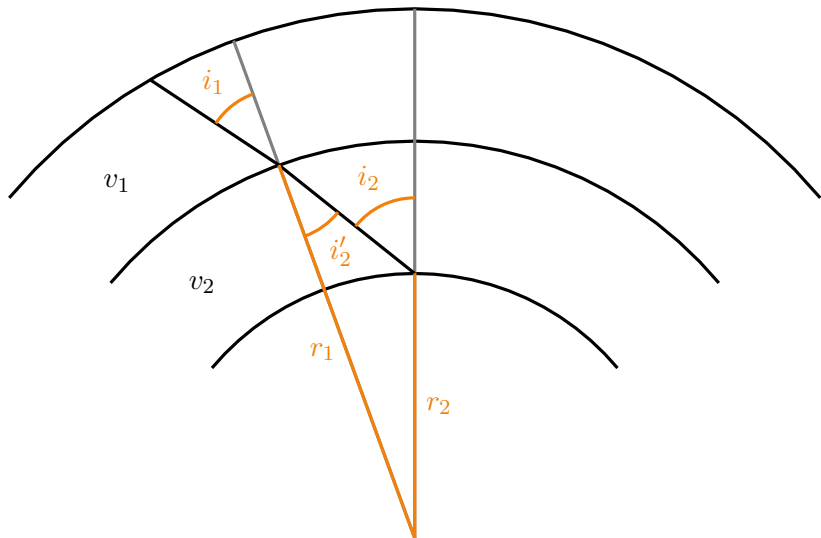




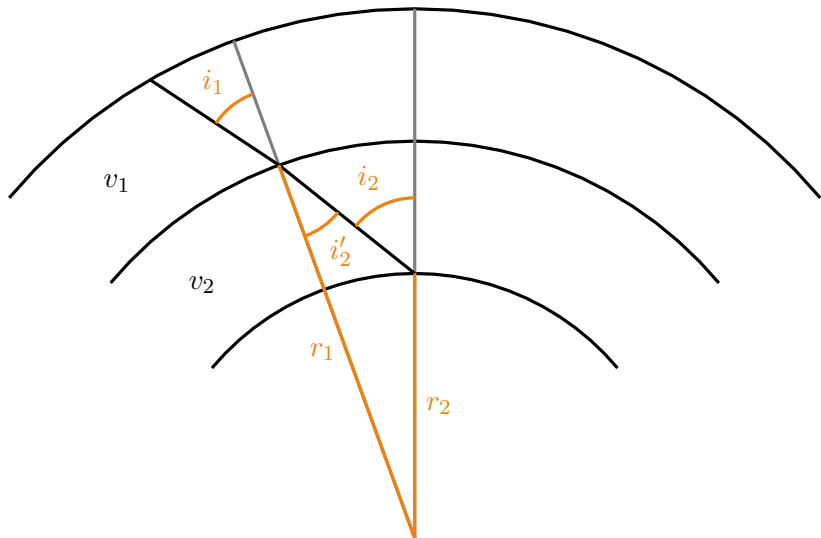
$$\frac{\sin i_1}{\sin i'_2} = \frac{v_1}{v_2};$$



$$\frac{\sin i_1}{\sin i'_2} = \frac{v_1}{v_2};$$



$$\frac{\sin i_1}{\sin i'_2} = \frac{v_1}{v_2}; \quad \frac{\sin i_2}{\sin i'_2} = \frac{r_1}{r_2};$$



$$\frac{\sin i_1}{\sin i_2'} = \frac{v_1}{v_2};$$

$$\frac{\sin i_2}{\sin i_2'} = \frac{r_1}{r_2};$$

$$\frac{r_1 \sin i_1}{v_1} = \frac{r_2 \sin i_2}{v_2}$$

Równanie promienia

$$\frac{r \sin i}{v} = \text{const}$$