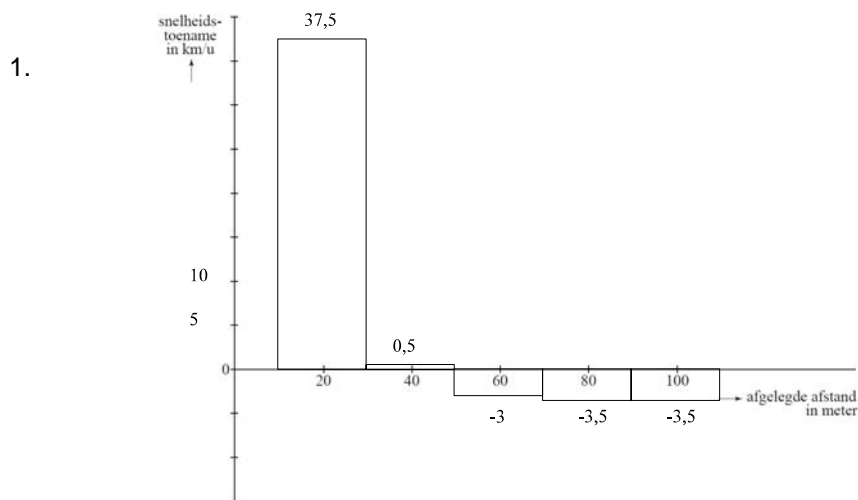


## Sprintsnelheid



2. 
$$V(100) = \frac{100800 \cdot \sqrt{100}}{(100 + 90)^2} = 27,9 \text{ km/u}$$

3. 
$$y_1 = 100800 \cdot \sqrt{x} / (x + 90)^2$$
  
 Optie maximum levert:  $x = 30$  en  $y = 38,3$   
 Haar hoogste snelheid is dus 38,3 km/u

4. 
$$100800 \cdot \sqrt{x} = 35 \cdot (x + 90)^2$$
  

$$y_1 = 100800 \cdot \sqrt{x}$$
  

$$y_2 = 35 \cdot (x + 90)^2$$
  
 Optie intersect levert:  $x = 14,23$  of  $x = 58,27$   
 Ze heeft dus  $58,27 - 14,23 = 44,0$  meter sneller dan 35 km/u gelopen.