

## Badkamerradiator

20. Dwarsbuizen:  $10 \cdot 50 = 500 \text{ cm}$   
Opstaande buizen:  $900 - 500 \text{ cm} = 400 \text{ cm}$   
De hoogte van de radiator is dus

$$\frac{400}{2} \text{ cm} = 200 \text{ cm}$$

21.  $2h + 10b = 900$   
 $2h = 900 - 10b$   
 $h = 450 - 5b$

22.  $V = -5b^2 + 450b$

$$\frac{dV}{db} = -10b + 450$$

$$\frac{dV}{db} = 0 \quad \rightarrow \quad b = \frac{450}{10} = 45$$

$$V(45) = -5 \cdot 45^2 + 450 \cdot 45 = 10125$$

De maximale oppervlakte is dus  $10125 \text{ cm}^2$