

1. a.) $(100x)^2 + (18x)^2 = 600^2$

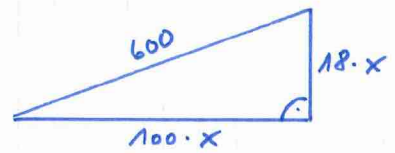
$$10'000x^2 + 324x^2 = 360'000$$

$$10'324x^2 = 360'000 \quad | :10'324$$

$$x^2 = \frac{360'000}{10'324} \quad | \sqrt{\quad}$$

$$x = \sqrt{\frac{360'000}{10'324}}$$

$$\approx \underline{\underline{5,9}}$$



\Rightarrow Höhen different: $18 \cdot x \approx \underline{\underline{106 \text{ m}}}$

b.) $\tan^{-1} 0,18 \approx \underline{\underline{10,2^\circ}}$

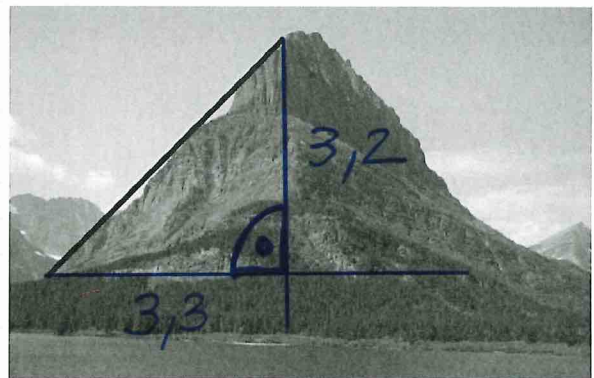
c.) $18\% = \frac{18}{100} = \frac{180}{1'000}$

$\Rightarrow 180^2 + 1'000^2 = x^2 \quad | \sqrt{\quad}$

$$x = \sqrt{180^2 + 1'000^2} \approx \underline{\underline{1'016 \text{ m}}}$$

2. a.) $\frac{3,2}{3,3} \approx 0,97$
 $= \underline{\underline{97\%}}$

b.) $\tan^{-1} 0,97 \approx \underline{\underline{44^\circ}}$



3. $\tan 15^\circ \approx 0,268 = \underline{\underline{26,8\%}}$

4. a.) $x^2 + 180^2 = 750^2 \quad | -180^2$

$$x^2 = 750^2 - 180^2 \quad | \sqrt{\quad}$$

$$x = \sqrt{750^2 - 180^2}$$

$$\cong \underline{728}$$

$$\Rightarrow \text{Steigung: } \frac{180}{x} \cong 0,247 = \underline{\underline{24,7\%}}$$

$$b.) \tan^{-1} 0,247 \cong \underline{\underline{13,9^\circ}}$$

