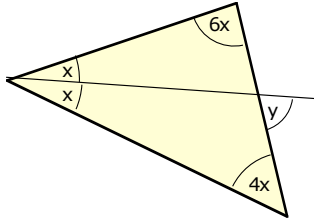
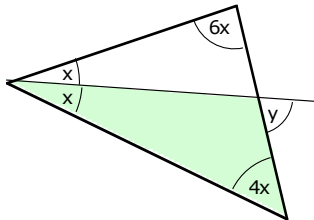


3a



Winkelsumme:

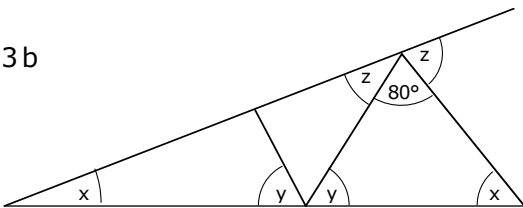
$$2x + 4x + 6x = 12x = 180^\circ \Rightarrow x = 15^\circ$$



Aussenwinkelsatz für das grüne Dreieck:

$$y = x + 4x = 5x = 75^\circ$$

3b

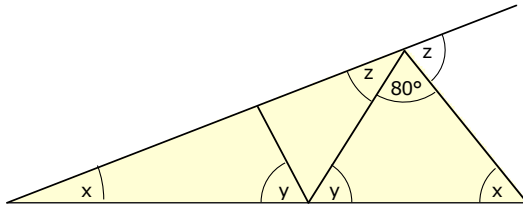


Es gilt:

$$2z + 80^\circ = 180^\circ$$

$$2z = 100^\circ$$

$$z = 50^\circ$$

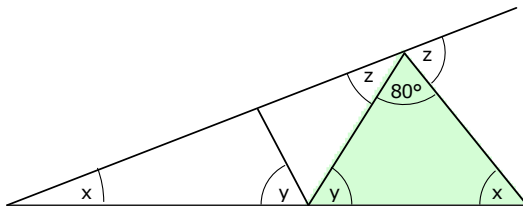


Im gelben Dreieck gilt:

$$x + x + z + 80^\circ = 180^\circ$$

$$2x = 100^\circ - z = 100^\circ - 50^\circ = 50^\circ$$

$$x = 25^\circ$$



Im grünen Dreieck gilt:

$$x + y + 80^\circ = 180^\circ$$

$$y = 100^\circ - x = 100^\circ - 25^\circ = 75^\circ$$