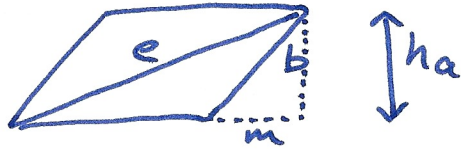# Korrekturvorlage M4E W5

730

$b = 102 \qquad e = 234 \qquad h_a = 90$
(alles in cm)
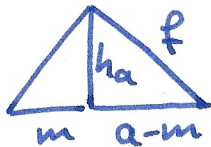
① $m^2 = b^2 - h_a^2 = \ldots = 48^2$

$m = 48\ cm.$

② $(m+a)^2 + h_a^2 = e^2$

$\Rightarrow m+a = \sqrt{e^2 - h_a^2} = 216\ cm$

$\Rightarrow a = 216 - 48 = 168 \qquad cm$

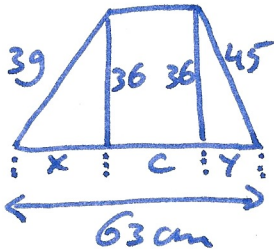③ $U = 2(a+b) = 2(168+102) = \ldots \qquad cm$.

④

$f^2 = h_a^2 + (a-m)^2$

$\quad = 90^2 + 120^2 = 150^2$

$f = 150$

⑤ $A = a \cdot h_a = 168 \cdot 90 = \ldots \qquad cm^2$
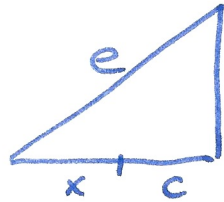
731

① $x^2 = 39^2 - 36^2 \longrightarrow x = 15$

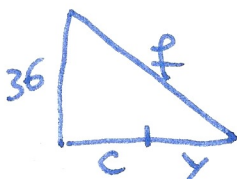② $y^2 = 45^2 - 36^2 \longrightarrow y = 27$

③ $c = a - x - y = 63 - 15 - 27 = 21$

④

$e^2 = 36^2 + 36^2$

$e = 36 \cdot \sqrt{2}$

⑤

$f^2 = 36^2 + 48^2 = 60^2 \qquad f = 60$

⑥ $A = \tfrac{1}{2} \cdot h_a (a+c) = \tfrac{1}{2} \cdot 36 (63+21) = \ldots TR \ldots$

(1) $\sqrt{120} = 2 \cdot \sqrt{30}$ (2) $\sqrt{121} = 11$ (3) $\sqrt{54} = 3 \cdot \sqrt{6}$

(4) $\sqrt{512} = \sqrt{4 \cdot 128} = 2\sqrt{128} = 2\sqrt{4 \cdot 32} = 4 \cdot \sqrt{32} =$

$\quad = 4\sqrt{16 \cdot 2} = \underline{16 \cdot \sqrt{2}}$