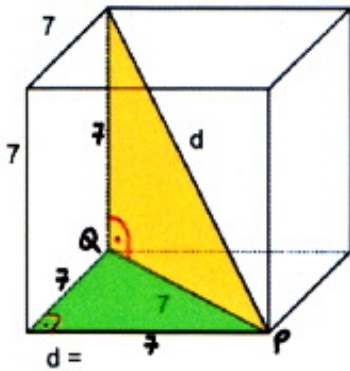
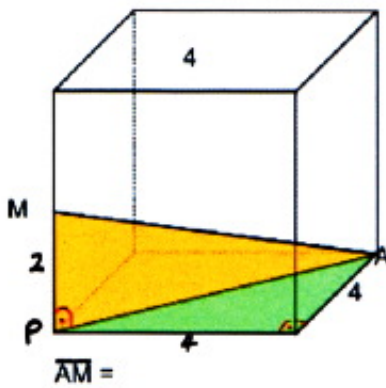


Der Punkt M ist immer der Mittelpunkt einer Strecke.



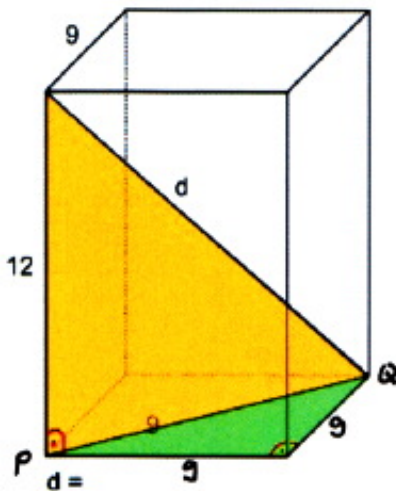
$$\begin{aligned} \overline{PQ}^2 &= 7^2 + 7^2 \\ \overline{PQ} &= \sqrt{7^2 + 7^2} \\ &= \sqrt{49 + 49} \\ &= \sqrt{98} \end{aligned}$$

$$\begin{aligned} d^2 &= 7^2 + \sqrt{98}^2 \\ d &= \sqrt{7^2 + \sqrt{98}^2} \\ &= \sqrt{49 + 98} \\ &= \sqrt{147} \end{aligned}$$



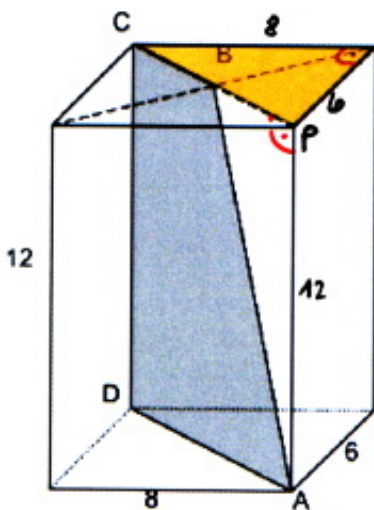
$$\begin{aligned} \overline{AP}^2 &= 4^2 + 4^2 \\ \overline{AP} &= \sqrt{4^2 + 4^2} \\ &= \sqrt{16 + 16} \\ &= \sqrt{32} \end{aligned}$$

$$\begin{aligned} \overline{AM}^2 &= 2^2 + \sqrt{32}^2 \\ \overline{AM} &= \sqrt{2^2 + \sqrt{32}^2} \\ &= \sqrt{4 + 32} \\ &= \sqrt{36} = \underline{\underline{6}} \end{aligned}$$



$$\begin{aligned} \overline{PQ}^2 &= 9^2 + 9^2 \\ \overline{PQ} &= \sqrt{9^2 + 9^2} \\ &= \sqrt{81 + 81} \\ &= \sqrt{162} \end{aligned}$$

$$\begin{aligned} d^2 &= 12^2 + \sqrt{162}^2 \\ d &= \sqrt{12^2 + \sqrt{162}^2} \\ &= \sqrt{144 + 162} \\ &= \sqrt{306} \end{aligned}$$



$$\begin{aligned} \overline{CP}^2 &= 8^2 + 6^2 \\ \overline{CP} &= \sqrt{8^2 + 6^2} \\ &= \sqrt{64 + 36} \\ &= \sqrt{100} = \underline{\underline{10}} \end{aligned}$$

$$\overline{BP} = \frac{\overline{CP}}{2} = \frac{10}{2} = \underline{\underline{5}}$$

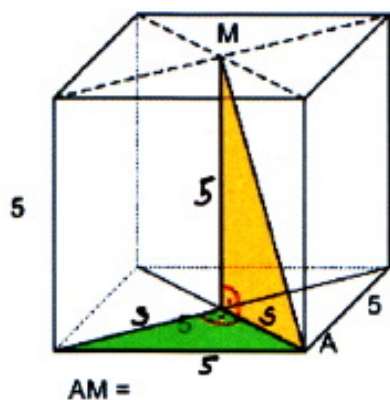
$$A_{\triangle APB} = \frac{5 \cdot 12}{2} = \underline{\underline{30}}$$

$$A_{\square APCD} = 10 \cdot 12 = \underline{\underline{120}}$$

$$\begin{aligned} A_{\triangle BCD} &= 120 - 30 \\ &= \underline{\underline{90}} \end{aligned}$$

Fläche(ABCD)=

Der Punkt M ist immer der Mittelpunkt einer Strecke.



$$5^2 = s^2 + s^2 = 2s^2 \quad | : 2$$

$$\frac{5^2}{2} = s^2$$

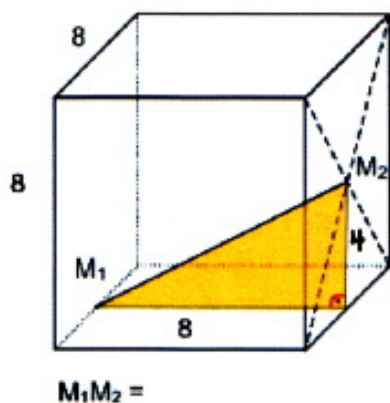
$$s = \sqrt{\frac{25}{2}} = \underline{\underline{\sqrt{12,5}}}$$

$$\overline{AM}^2 = 5^2 + \sqrt{12,5}^2$$

$$\overline{AM} = \sqrt{5^2 + \sqrt{12,5}^2}$$

$$= \sqrt{25 + 12,5}$$

$$= \underline{\underline{\sqrt{37,5}}}$$

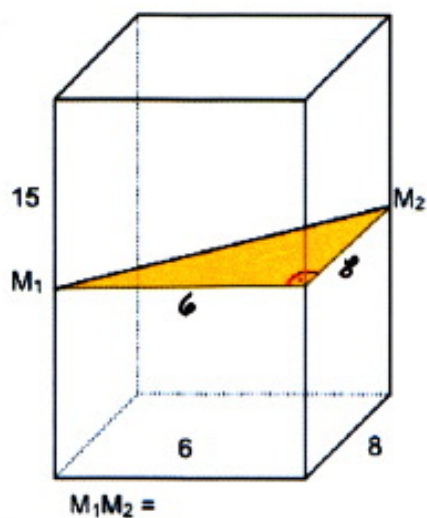


$$\overline{M_1 M_2}^2 = 8^2 + 4^2$$

$$\overline{M_1 M_2} = \sqrt{8^2 + 4^2}$$

$$= \sqrt{64 + 16}$$

$$= \underline{\underline{\sqrt{80}}}$$



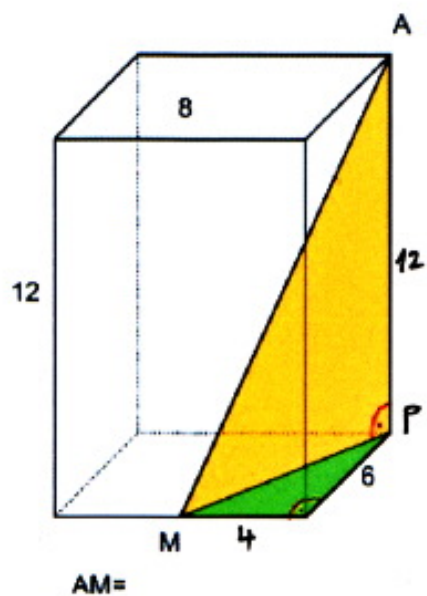
$$\overline{M_1 M_2}^2 = 6^2 + 8^2$$

$$\overline{M_1 M_2} = \sqrt{6^2 + 8^2}$$

$$= \sqrt{36 + 64}$$

$$= \sqrt{100}$$

$$= \underline{\underline{10}}$$



$$\overline{MP}^2 = 4^2 + 6^2$$

$$\overline{MP} = \sqrt{4^2 + 6^2}$$

$$= \sqrt{16 + 36}$$

$$= \underline{\underline{\sqrt{52}}}$$

$$\overline{AM}^2 = 12^2 + \sqrt{52}^2$$

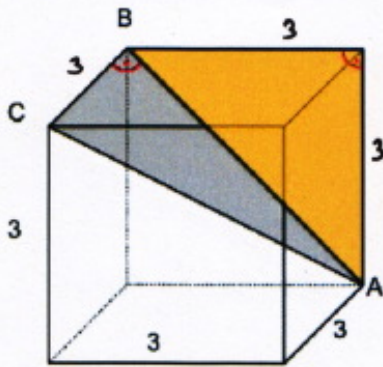
$$\overline{AM} = \sqrt{12^2 + \sqrt{52}^2}$$

$$= \sqrt{144 + 52}$$

$$= \sqrt{196}$$

$$= \underline{\underline{14}}$$

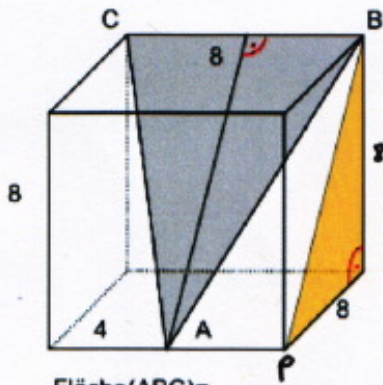
Der Punkt M ist immer der Mittelpunkt einer Strecke.



Fläche(ABC) =

$$\begin{aligned}\overline{AB}^2 &= 3^2 + 3^2 \\ \overline{AB} &= \sqrt{3^2 + 3^2} \\ &= \sqrt{9 + 9} \\ &= \sqrt{18}\end{aligned}$$

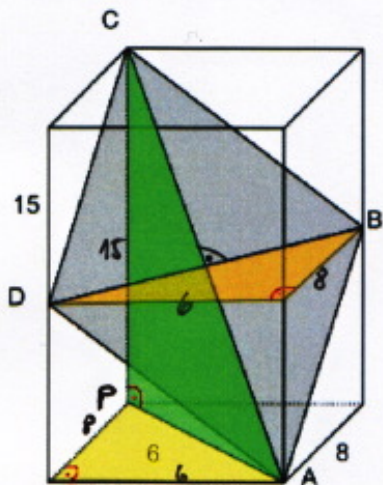
$$\begin{aligned}A &= \frac{3 \cdot \sqrt{18}}{2} \\ &= \underline{\underline{1,5 \cdot \sqrt{18}}}\end{aligned}$$



Fläche(ABC) =

$$\begin{aligned}\overline{BP}^2 &= 8^2 + 8^2 \\ \overline{BP} &= \sqrt{8^2 + 8^2} \\ &= \sqrt{64 + 64} \\ &= \sqrt{128}\end{aligned}$$

$$\begin{aligned}A &= \frac{8 \cdot \sqrt{128}}{2} \\ &= \underline{\underline{4 \cdot \sqrt{128}}}\end{aligned}$$



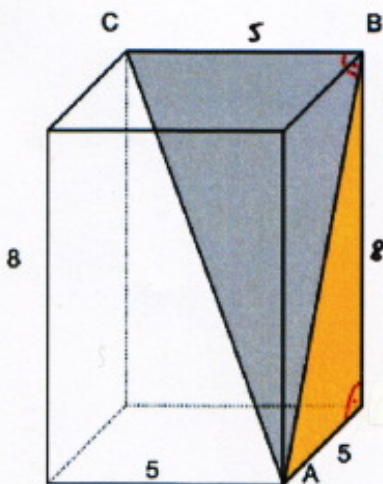
Fläche(ABCD) =

$$\begin{aligned}\overline{BD}^2 &= 6^2 + 8^2 \\ \overline{BD} &= \sqrt{6^2 + 8^2} \\ &= \sqrt{36 + 64} \\ &= \sqrt{100} \\ &= \underline{10}\end{aligned}$$

$$\begin{aligned}\overline{AP}^2 &= 6^2 + 8^2 \\ \overline{AP} &= \sqrt{6^2 + 8^2} = \underline{10}\end{aligned}$$

$$\begin{aligned}\overline{AC}^2 &= 15^2 + 10^2 \\ \overline{AC} &= \sqrt{15^2 + 10^2} \\ &= \sqrt{225 + 100} = \underline{\underline{\sqrt{325}}}\end{aligned}$$

$$A = \frac{\sqrt{325} \cdot 10}{2} = \underline{\underline{5 \cdot \sqrt{325}}}$$



Fläche(ABC) =

$$\begin{aligned}\overline{AB}^2 &= 5^2 + 8^2 \\ \overline{AB} &= \sqrt{5^2 + 8^2} \\ &= \sqrt{25 + 64} \\ &= \sqrt{89}\end{aligned}$$

$$\begin{aligned}A &= \frac{5 \cdot \sqrt{89}}{2} \\ &= \underline{\underline{2,5 \cdot \sqrt{89}}}\end{aligned}$$