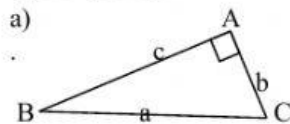


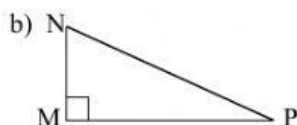
Teorema lui Pitagora

Fișa 1

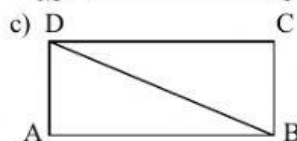
1) Completați:



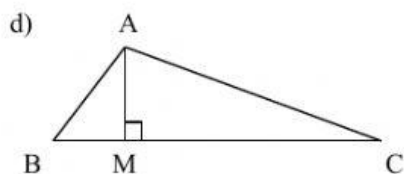
$$\Delta ABC: m(\angle A)=90^\circ \xrightarrow{\text{T.Pitagora}} \begin{matrix} c^2 = & b^2 + & a^2 \\ a^2 = & b^2 + & c^2 \end{matrix}$$



$$\Delta MNP: m(\angle M)=90^\circ \xrightarrow{\text{T.Pit.}} NP^2 = 2^2 + 2^2, \text{ deci } MN^2 = 2^2 - 2^2$$

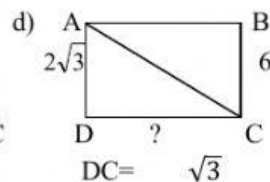
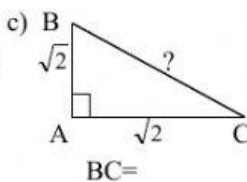
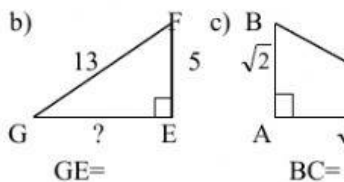
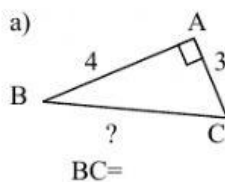


$$\begin{aligned} \Delta ABD: m(\angle D)=90^\circ &\xrightarrow{\text{T.Pit.}} BD^2 = AD^2 + AB^2 \\ \Delta CBD: m(\angle D)=90^\circ &\xrightarrow{\text{T.Pit.}} CD^2 = AD^2 + BC^2 \end{aligned}$$



$$\begin{aligned} \Delta MAC: m(\angle M)=90^\circ &\xrightarrow{\text{T.Pit.}} AM^2 = MC^2 + AC^2 \\ \Delta MAB: m(\angle M)=90^\circ &\xrightarrow{\text{T.Pit.}} AB^2 = AM^2 + BM^2 \end{aligned}$$

2) Calculați lungimile laturilor necunoscute:



3) Lungimea diagonalei unui dreptunghi cu dimensiunile de 5 cm și respectiv 10 cm este egală cu $\sqrt{5}$ cm.

4) Lungimea ipotenuzei unui triunghi dreptunghic și isoscel cu cateta de lungime 8 cm este egală cu $\sqrt{2}$ cm.

5) Lungimea catetei unui triunghi dreptunghic și isoscel cu ipotenuza de lungime 6 cm este egală cu $\sqrt{2}$ cm.

6) În triunghiul dreptunghic ABC, $m(\hat{A}) = 90^\circ$, $AD \perp BC$, $D \in (BC)$, se cunosc $AB = 20$ cm și $AD = 12$ cm.

a) $BD =$ cm;

b) $CD =$ cm;

c) $BC =$ cm;

d) $AC =$ cm.

7) În triunghiul dreptunghic ABC, $m(\hat{A}) = 90^\circ$, $AD \perp BC$, $D \in (BC)$, se cunosc $BC = 29$ cm și $AC = 21$ cm.

a) $AB =$ cm;

b) $BD =$ cm;

c) $CD =$ cm;

d) $AD =$ cm.