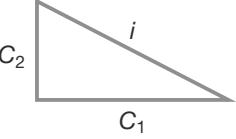


Il teorema di Pitagora

Esercizi supplementari di verifica

Esercizio 1

Individua quali delle seguenti formule sono esatte e correggi quelle che ritieni errate.

|  | Vero/Falso | Correzione |
|-----------------------------------------------------------------------------------|--------------------------|------------|
| a) $c_1 = \sqrt{i - c_2}$ | <input type="checkbox"/> | |
| b) $c_2 = c_1^2 - i^2$ | <input type="checkbox"/> | |
| c) $i = \sqrt{c_1^2 + c_2^2}$ | <input type="checkbox"/> | |
| d) $c_2 = \sqrt{c_1^2 - i^2}$ | <input type="checkbox"/> | |
| e) $i = \sqrt{c_1^2 \times c_2^2}$ | <input type="checkbox"/> | |
| f) $i = c_1^2 + c_2^2$ | <input type="checkbox"/> | |
| g) $c_2 = \sqrt{i^2 - c_1^2}$ | <input type="checkbox"/> | |

Esercizio 2

Completa la tabella relativa a una serie di triangoli rettangoli (c_1 = **cateto**, c_2 = **cateto**, i = **ipotenusa**).

| c_1 | c_2 | i |
|-------|-------|-------|
| 4 cm | | 5 cm |
| | 9 cm | 12 cm |
| 12 cm | 16 cm | |
| 7 cm | 4 cm | |
| | 2 cm | 10 cm |
| 20 cm | | 30 cm |

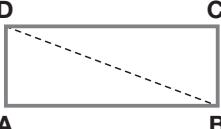
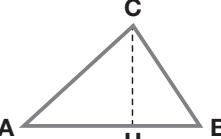
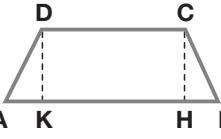
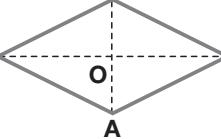
Esercizio 3

Risovi i seguenti problemi.

- Trova il perimetro di un triangolo rettangolo sapendo che i cateti misurano 5 cm e 12 cm.
- Determina l'area e il perimetro di un triangolo rettangolo sapendo che l'ipotenusa misura 8 cm e un cateto misura 3 cm.
- Trova la misura dell'altezza relativa all'ipotenusa di un triangolo rettangolo avente i cateti che misurano 6 cm e 8 cm.

Esercizio 4

Risovi i seguenti problemi.

| Figura | | Dati | Incognite |
|--------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| a) |  | $\overline{AB} = 6 \text{ cm}$ $\overline{BC} = 4 \text{ cm}$ | $\overline{BD} = \dots$ |
| b) |  | $\overline{AB} = 10 \text{ cm}$ $\overline{BC} = 5 \text{ cm}$ $\overline{CH} = 4 \text{ cm}$ | $\overline{HB} = \dots$ $\overline{AC} = \dots$ |
| c) |  | $\overline{AD} = \overline{BC} = 13 \text{ cm}$ $\overline{AB} = 30 \text{ cm}$ $\overline{CD} = 20 \text{ cm}$ | $\overline{CH} = \dots$ |
| d) |  | $\overline{AC} = 15 \text{ cm}$ $\overline{DB} = 25 \text{ cm}$ | $\overline{BC} = \dots$ |
| e) |  | $\overline{BC} = 10 \text{ cm}$ $\overline{CH} = 8 \text{ cm}$ | $\overline{HB} = \dots$ |

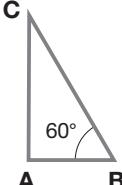
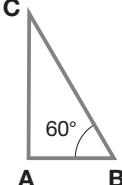
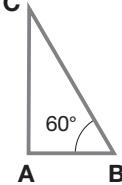
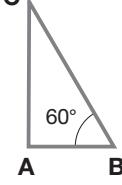
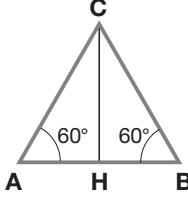
Esercizio 5

Risovi i seguenti problemi.

| Figura | | Dati | Incognite |
|--------|-------------------------------------------------------------------------------------|------------------------------------------------|-------------------------|
| a) |  | $\overline{AB} = l$ | $\overline{BD} = \dots$ |
| b) |  | $\overline{AB} = \overline{AC} = 9 \text{ cm}$ | $\overline{BC} = \dots$ |
| c) |  | $\overline{BD} = 14,1 \text{ cm}$ | $\overline{AB} = \dots$ |

Esercizio 6

Risovi i seguenti problemi.

| | Figura | Dati | Incognite |
|----|-------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------|
| a) |  | $\overline{BC} = l$ | $\overline{AB} = \dots$ $\overline{AC} = \dots$ |
| b) |  | $\overline{BC} = 6 \text{ cm}$ | $\overline{AB} = \dots$ $\overline{AC} = \dots$ |
| c) |  | $\overline{AB} = 7 \text{ cm}$ | $\overline{BC} = \dots$ $\overline{AC} = \dots$ |
| d) |  | $\overline{AC} = 10 \text{ cm}$ | $\overline{BC} = \dots$ $\overline{AB} = \dots$ |
| e) |  | $\overline{BC} = 18 \text{ cm}$ | $\overline{CH} = \dots$ $A = \dots$ |

Scheda di valutazione sul teorema di Pitagora

| Alunno | Alunno | Alunno | Alunno | Alunno | Alunno | Alunno |
|-----------|-------------------------------------|-------------------------------------|----------------------|----------------------------------|----------------------------------|--------|
| Data | | | | | | |
| Classe | | | | | | |
| Esercizio | Conoscenze | Competenze | N. risposte corrette | Che cosa è sbagliato | Valutazione dell'insegnante | |
| 1 | <input checked="" type="checkbox"/> | |/7 | ..... ..... ..... ..... | ..... ..... ..... ..... |  |
| 2 | | <input checked="" type="checkbox"/> |/6 | ..... ..... ..... | ..... ..... ..... |  |
| 3 | | <input checked="" type="checkbox"/> |/3 | ..... ..... ..... | ..... ..... ..... |  |
| 4 | | <input checked="" type="checkbox"/> |/5 | ..... ..... ..... | ..... ..... ..... |  |
| 5 | | <input checked="" type="checkbox"/> |/3 | ..... ..... ..... | ..... ..... ..... |  |
| 6 | | <input checked="" type="checkbox"/> |/5 | ..... ..... ..... | ..... ..... ..... |  |