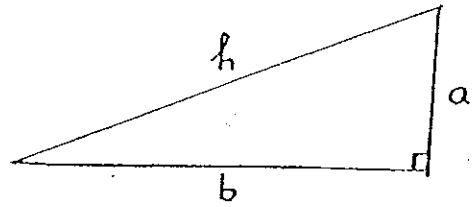
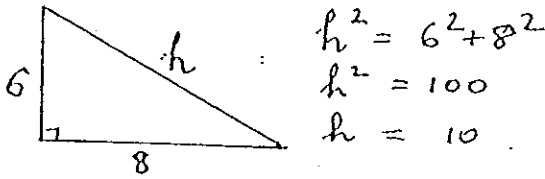


# PYTHAGORAS' RULE - 458

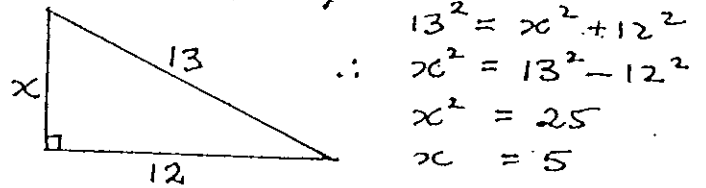
In a right angle triangle, the side opposite the  $90^\circ$  is called the "hypotenuse"  
 Call it "h" then:  $h^2 = a^2 + b^2$



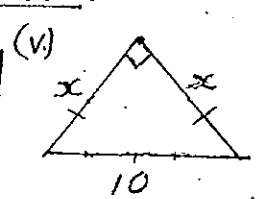
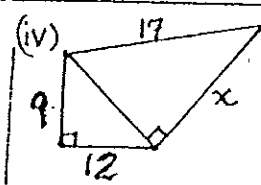
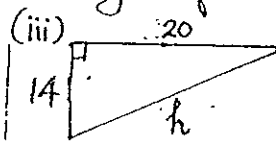
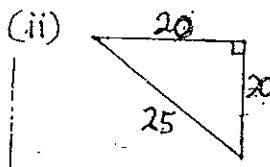
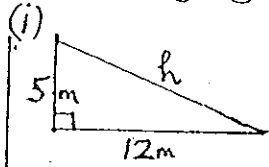
Example 1:



Example 2:



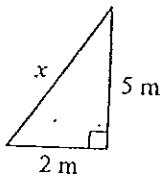
Use Pythagoras' Rule to find the lengths of sides marked  $x$  or  $h$  :-



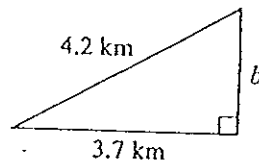
## Exercises

Evaluate the pronumerals in the following:

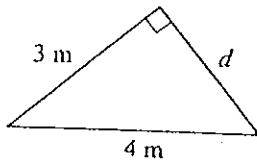
1.



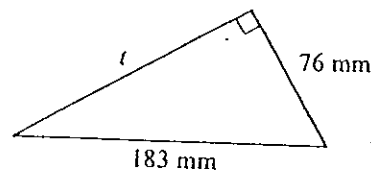
4.



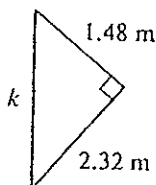
2.



5.



3.



6. A rectangle has sides of 4.38 m and 6.27 m. Find the length of the diagonal.

7. A rectangle has one side of length 27.3 mm and a diagonal length of 32.4 mm. Find the length of the other side.

8. Find the length of the diagonal of a square that has sides of length 837 mm.

**(A)**

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**(B)** Evaluate the pronumerals in the following:

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10. Evaluate the pronumerals:

(a)

(b)

(c)

(d)

**ANSWERS**

- (A) 1) 110° 2) 80° 3) 40° 4) 50° 5) 43° 6) 30° 7) 70° 8) 15°  
 (B) 1) a=30 b=80 c=70 2) p=46 q=72 r=62 3) k=76 l=50 m=54 4) x=70  
 5) b=107 g=128 p=73 6) x=80 7) x=20 8) x=130 9) m=150  
 10) (a) x=70 (b) p=49 q=15 (c) x=23 (d) x=36  
 (C) (i) 13m (ii) 15 (iii) 24.4 (iv) 8 (v) 7.07  
 (D) 1) 5.39m 2) 2.65m 3) 2.75m 4) 1.99km 5) 166mm 6) 7.65m 7) 17.4mm 8) 1184mm