Name : ....

Short Test : pythagorean theorem

Exercise 1

a. The triangle LZA has a right angle in Z. ZA = 4,4 m. AL = 5,5 m.
Calculate the length of [LZ]. Give the result in m.
b. The triangle FLZ has a right angle in L. FL = 11 dm. LZ = 21 dm.
Calculate the length of [ZF]. Give the result in dm. Round the result au centième.

Name : ....

Short Test : pythagorean theorem

Exercise 1

a. The triangle BKE has a right angle in K. BK = 144 dm. KE = 191 dm.
Calculate the length of [EB]. Give the result in dm. Round the result au dixième.
b. The triangle RQH has a right angle in Q. RQ = 4 m. HR = 5,8 m.
Calculate the length of [QH]. Give the result in m.

Name : ....

Short Test : pythagorean theorem

Exercise 1

a. The triangle LZA has a right angle in Z. ZA = 4,4 m. AL = 5,5 m.
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Name : ....
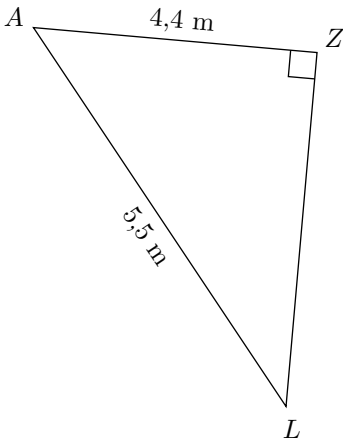
Short Test : pythagorean theorem

Exercise 1

a. The triangle BKE has a right angle in K. BK = 144 dm. KE = 191 dm.
Calculate the length of [EB]. Give the result in dm. Round the result au dixième.
b. The triangle RQH has a right angle in Q. RQ = 4 m. HR = 5,8 m.
Calculate the length of [QH]. Give the result in m.

Examples of answers

Exercise 1

a. Sketch :

The triangle LZA has a right angle in Z.
Then by Pythagoras theorem :

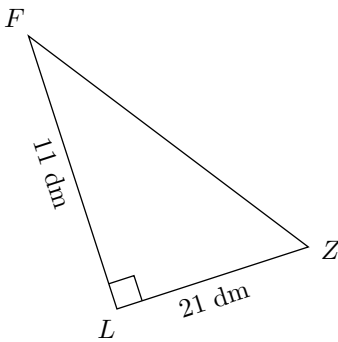$$LZ^2 = AL^2 - ZA^2$$

$$LZ^2 = 5,5^2 - 4,4^2$$

$$LZ^2 = 30,25 - 19,36$$

$$LZ^2 = 10,89$$

$$LZ = \sqrt{10,89} \text{ because LZ is positive.}$$

$$\underline{LZ = 3,3 \text{ m}}$$

b. Sketch :

The triangle FLZ has a right angle in L.
Then by Pythagoras theorem :

$$ZF^2 = FL^2 + LZ^2$$

$$ZF^2 = 11^2 + 21^2$$
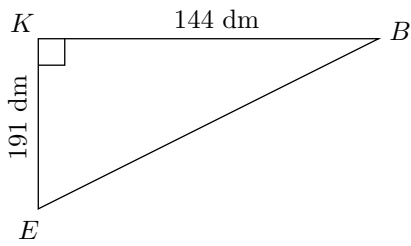
$$ZF^2 = 121 + 441$$

$$ZF^2 = 562$$

$$ZF = \sqrt{562} \text{ because ZF is positive.}$$

$$\underline{ZF \simeq 23,71 \text{ dm}}$$

Examples of answers

Exercise 1

a. Sketch :

The triangle BKE has a right angle in K.
Then by Pythagoras theorem :
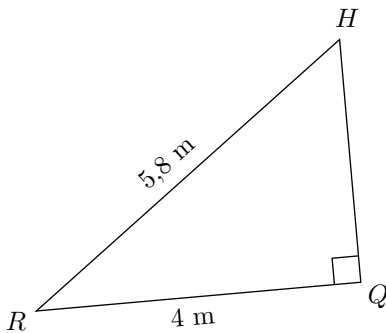
$$EB^2 = BK^2 + KE^2$$

$$EB^2 = 144^2 + 191^2$$

$$EB^2 = 20736 + 36481$$

$$EB^2 = 57217$$

$$EB = \sqrt{57217} \text{ because EB is positive.}$$

$$\underline{EB \simeq 239,2 \text{ dm}}$$

b. Sketch :

The triangle RQH has a right angle in Q.
Then by Pythagoras theorem :

$$QH^2 = HR^2 - RQ^2$$

$$QH^2 = 5,8^2 - 4^2$$

$$QH^2 = 33,64 - 16$$

$$QH^2 = 17,64$$

$$QH = \sqrt{17,64} \text{ because QH is positive.}$$

$$\underline{QH = 4,2 \text{ m}}$$