Satz des Pythagoras – Übungen

Hypotenuse	Kathete 1	Kathete 2	passende Formel	Ergebnis
h	15 cm	20 cm	$\mathbf{h} = \sqrt{\mathbf{k1^2 + k2^2}}$; $h = \sqrt{15^2 + 20^2}$	h = 25 cm
h	36 mm	48 mm		
h	5 cm	12 cm		
h	16 cm	30 cm		
h	10 cm	12 cm		
h	20 cm	21 cm		
h	15 cm	19 cm		
h	31 cm	35 cm		
h	65 mm	72 mm		
h	120 m	160 m		
h	3 cm	40 mm		

Kathete 1	Hypotenuse	Kathete 2	passende Formel	Ergebnis
k_1	30 cm	24 cm	$\mathbf{k_1} = \sqrt{\mathbf{h^2 - k2^2}}$; $k_1 = \sqrt{30^2 - 24^2}$	k_1 = 18 cm
k_1	13 cm	12 cm		
k_1	17 cm	8 cm		
k_1	20 cm	12 cm		
k_1	34 cm	29 cm		
k_1	16 m	4 m		
k_1	29 cm	21 cm		
k_1	101 mm	99 mm		
k_1	35 cm	28 cm		
k_1	65 mm	34 mm		
k_1	12 m	80 dm		

Hypotenuse	Kathete 1	Kathete 2	passende Formel	Ergebnis
h	45 cm	20 cm		
105 cm	36 cm	k_2		
56 cm	k_1	455 mm		
h	48 mm	5,5 cm		
80 cm	12 cm	k_2		
384 mm	k_1	27,3 cm		
h	0,045 m	34 mm		
85	84	k_2		
h	24	25		
290	k_1	48		

Satz des Pythagoras – Lösungen

Hypotenuse	Kathete 1	Kathete 2	passende Formel	Ergebnis
h	15 cm	20 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{15^2 + 20^2}$	**h = 25 cm**
h	36 mm	48 mm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{36^2 + 48^2}$	**h = 60 cm**
h	5 cm	12 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{5^2 + 12^2}$	**h = 13 cm**
h	16 cm	30 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{16^2 + 30^2}$	**h = 34 cm**
h	10 cm	12 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{10^2 + 12^2}$	**h = 15,6 cm**
h	20 cm	21 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{21^2 + 21^2}$	**h = 29 cm**
h	15 cm	19 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{15^2 + 19^2}$	**h = 24,2 cm**
h	31 cm	35 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{31^2 + 35^2}$	**h = 46,8 cm**
h	65 mm	72 mm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{65^2 + 72^2}$	**h = 97 cm**
h	120 m	160 m	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{120^2 + 160^2}$	**h = 200 m**
h	3 cm	40 mm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{3^2 + 4^2}$	**h = 5 cm**

Kathete 1	Hypotenuse	Kathete 2	passende Formel	Ergebnis
k_1	30 cm	24 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{30^2 - 24^2}$	**k_1 = 18 cm**
k_1	13 cm	12 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{13^2 - 12^2}$	**k_1 = 5 cm**
k_1	17 cm	8 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{17^2 - 8^2}$	**k_1 = 15 cm**
k_1	20 cm	12 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{20^2 - 12^2}$	**k_1 = 16 cm**
k_1	34 cm	29 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{34^2 - 29^2}$	**k_1 = 17,7 cm**
k_1	16 m	4 m	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{16^2 - 4^2}$	**k_1 = 15,5 cm**
k_1	29 cm	21 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{29^2 - 21^2}$	**k_1 = 20 cm**
k_1	101 mm	99 mm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{101^2 - 99^2}$	**k_1 = 20 cm**
k_1	35 cm	28 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{35^2 - 28^2}$	**k_1 = 21 cm**
k_1	65 mm	34 mm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{65^2 - 34^2}$	**k_1 = 55,4 cm**
k_1	12 m	80 dm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{12^2 - 8^2}$	**k_1 = 8,9 cm**

Hypotenuse	Kathete 1	Kathete 2	passende Formel	Ergebnis
h	45 cm	20 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{45^2 + 20^2}$	**h = 49,2 cm**
105 cm	36 cm	k_2	$\mathbf{k_2 = \sqrt{h^2 - k1^2}}$; $k_1 = \sqrt{105^2 - 36^2}$	**k_2 = 98,6 cm**
56 cm	k_1	455 mm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{56^2 - 45{,}5^2}$	**k_1 = 32,6 cm**
h	48 mm	5,5 cm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{4{,}8^2 + 5{,}5^2}$	**h = 7,3 cm**
80 cm	12 cm	k_2	$\mathbf{k_2 = \sqrt{h^2 - k1^2}}$; $k_1 = \sqrt{80^2 - 12^2}$	**k_2 = 79,1 cm**
384 mm	k_1	27,3 cm	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{38{,}4^2 - 27{,}3^2}$	**k_1 = 38,0 cm**
h	0,045 m	34 mm	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{45^2 + 34^2}$	**h = 56,4 cm**
85	84	k_2	$\mathbf{k_2 = \sqrt{h^2 - k1^2}}$; $k_1 = \sqrt{85^2 - 84^2}$	**k_2 = 13 cm**
h	24	25	$\mathbf{h = \sqrt{k1^2 + k2^2}}$; $h = \sqrt{24^2 + 25^2}$	**h = 34,7 cm**
290	k_1	48	$\mathbf{k_1 = \sqrt{h^2 - k2^2}}$; $k_1 = \sqrt{290^2 - 48^2}$	**k_1 = 286 cm**