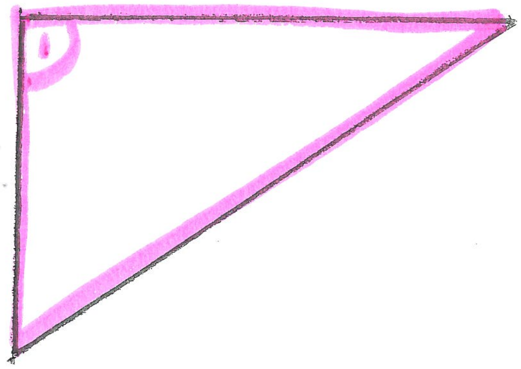
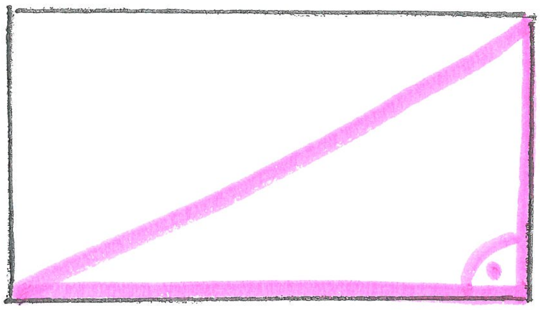
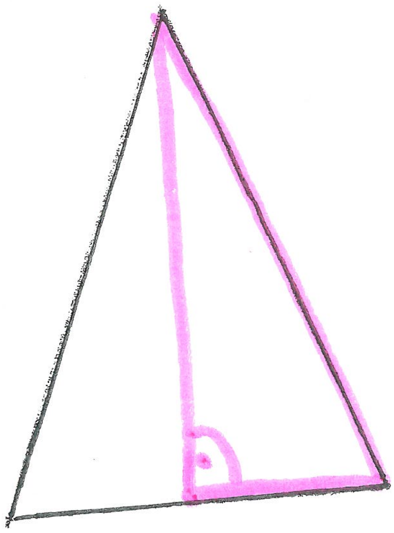
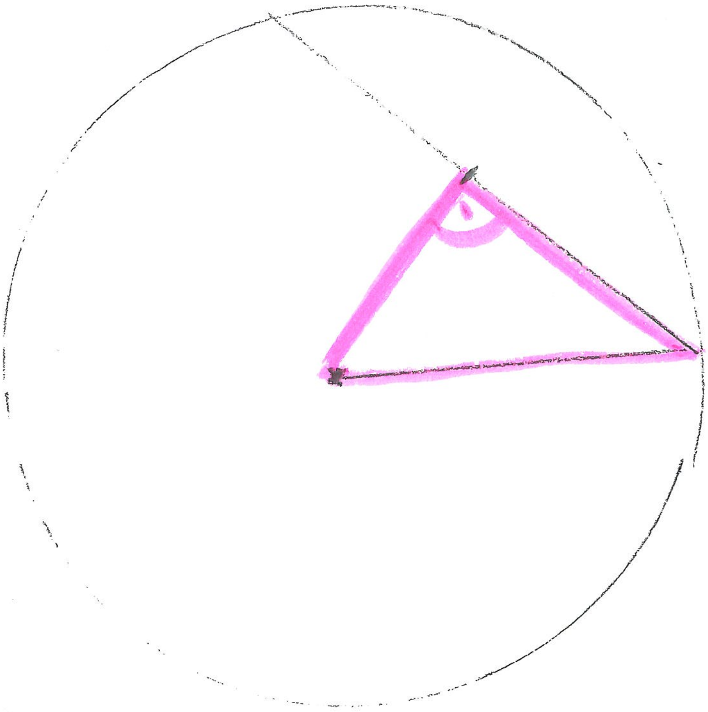
M8

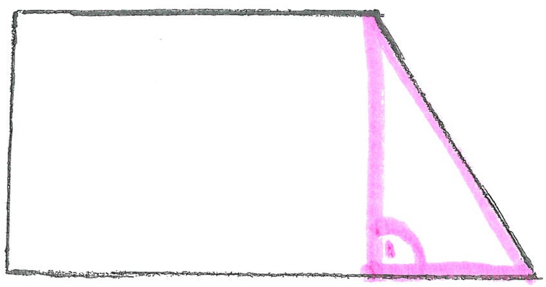
řešení - třeba (mohou být u některých obrázků i jiné varianty)

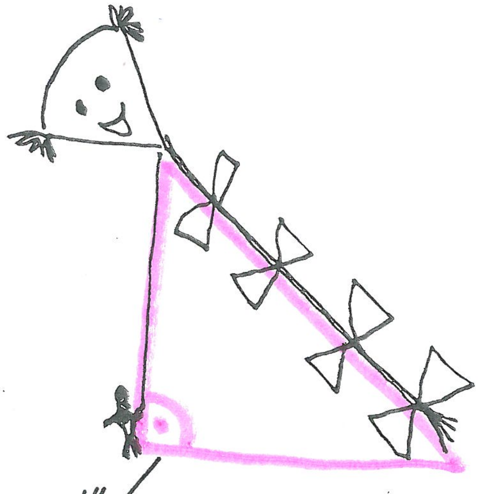










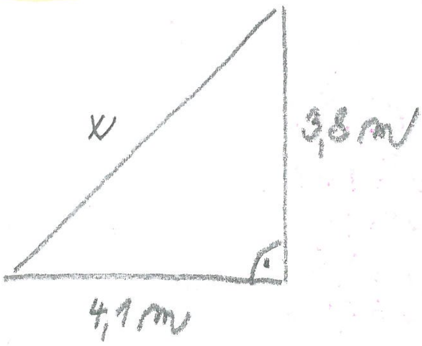


výška postavy lze zanedbat

M8

Řešení: ♥

PS 21/6



$x^2 = 4{,}1^2 + 3{,}8^2$

$x^2 = 16{,}81 + 14{,}44$

$x^2 = 31{,}25$

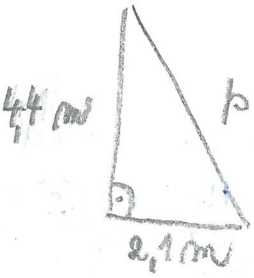
$x = \sqrt{31{,}25}$

$x \doteq 5{,}59\ m$ + 30 cm = 0,3 m na upevnění

$= \underline{5{,}89\ m}$

Délka žebříku pro padací most je asi 6 m.

PS 21/7



$p^2 = 4{,}4^2 + 2{,}1^2$

$p^2 = 19{,}36 + 4{,}41$

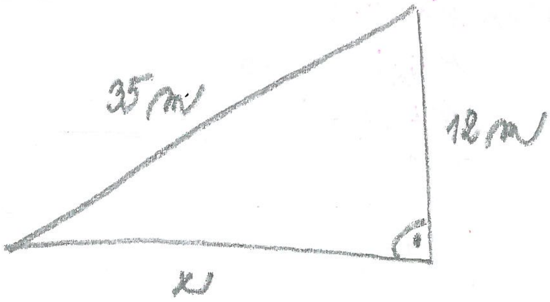
$p^2 = 23{,}77$

$p = \sqrt{23{,}77}$

$\underline{p \doteq 4{,}9\ m}$

Délka podpěry je asi 4,9 m.

PS 22/10



$x^2 = 35^2 - 12^2$

$x^2 = 1225 - 144$

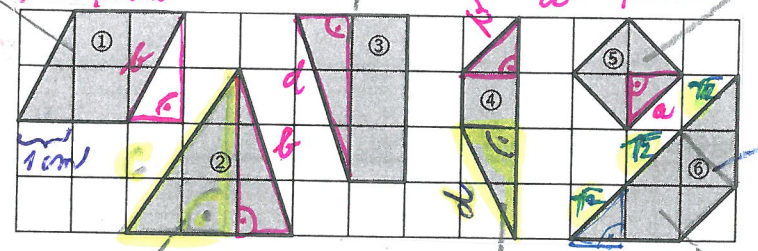
$x^2 = 1081$

$x = \sqrt{1081}$

$\underline{x = 32{,}9\ m}$

Dominik upevní lano ve vzdálenosti asi 32,9 m.

PS 25/10



$S = a \cdot a$
$S = 2 \cdot 2$
$S = 4\ cm^2$

$o = 2 \cdot (a+b)$
$o = 2 \cdot (2+2{,}2)$
$o \doteq 8{,}4\ cm$

$b^2 = 1^2 + 2^2$
$b^2 = 1 + 4$
$b^2 = 5 \quad / \sqrt{\ }$
$b \doteq 2{,}2\ cm$

$S = \frac{(a+c) \cdot v}{2}$
$S = \frac{(2+1) \cdot 3}{2}$
$S = 4{,}5\ cm^2$

$o = a+b+c+d$
$o = 2+3+1+3{,}2$
$o = 9{,}2\ cm$

$d^2 = 1^2 + 3^2$
$d^2 = 1 + 9$
$d^2 = 10$
$d = \sqrt{10}$
$d \doteq 3{,}2\ cm$

$a^2 = 1^2 + 1^2$
$a^2 = 1 + 1$
$a^2 = 2$
$a = \sqrt{2}$
$a \doteq 1{,}4\ cm$

$S = a^2$
$S = 1{,}4^2$
$S \doteq 2\ cm^2$

$o = 4 \cdot a$
$o = 4 \cdot 1{,}4$
$o = 5{,}6\ cm$

$S = \frac{a \cdot v}{2}$
$S = \frac{3 \cdot 3}{2}$
$S = 4{,}5\ cm^2$

$o = a+b+c$
$o = 3 + 3{,}2 + 3{,}6$
$o \doteq 9{,}8\ cm$

$b^2 = 3^2 + 1^2$
$b^2 = 9 + 1$
$b^2 = 10$
$b = \sqrt{10}$
$b \doteq 3{,}2\ cm$

$c^2 = 2^2 + 3^2$
$c^2 = 4 + 9$
$c^2 = 13$
$c = \sqrt{13}$
$c \doteq 3{,}6\ cm$

$S = \frac{(a+c) \cdot v}{2}$
$S = \frac{(1+4) \cdot 1}{2}$
$S = 2{,}5\ cm^2$

$o = a+b+c+d$
$o = 1 + 1{,}4 + 4 + 2{,}2$
$o \doteq 8{,}6\ cm$

stejné jako u čtverce
$b^2 = 1^2 + 1^2$
$b = \sqrt{2}$
$b \doteq 1{,}4\ cm$

$d^2 = 1^2 + 2^2$
$d^2 = 1 + 4$
$d^2 = 5$
$d = \sqrt{5}$
$d \doteq 2{,}2\ cm$

$o = a+b+c+d$
$o = 1{,}4 + 2 + \underbrace{3 \cdot \sqrt{2}}_{4{,}2} + 2$
$o \doteq 9{,}6\ cm$

$S = \frac{(a+c) \cdot v}{2}$
$S = \frac{(1+4{,}2) \cdot 1{,}4}{2}$
$S \doteq 3{,}64\ cm^2$