Pomocí trojúhelníkové nerovnosti zjisti, zda jde trojúhelník sestrojit.

a) Δ ABC: $a = 4$ cm, $b = 7$ cm, $c = 5$ cm

lze

b) Δ EFG: $e = 7$ cm, $f = 5$ cm, $g = 7$ cm

lze

c) Δ KLM: $k = 13$ mm, $l = 27$ mm, $m = 10$ mm

Nelze

d) Δ OPQ: $o = 6$ cm, $p = 8$ cm, $q = 10$ cm

lze

e) Δ RST: $r = 36$ mm, $s = 36$ mm, $t = 36$ mm

lze

a) $5+7>4$ ✓
$7+4>5$ ✓
$5+4>7$ ✓

b) $7+5>7$ ✓
$5+7>7$ ✓
$7+7>5$ ✓

d) $6+8>10$ ✓
$8+10>6$ ✓
$10+6>8$ ✓

e) $36+36>36$ ✓
$36+36>36$ ✓
$36+36>36$ ✓

c) $13+10>27$ ✗

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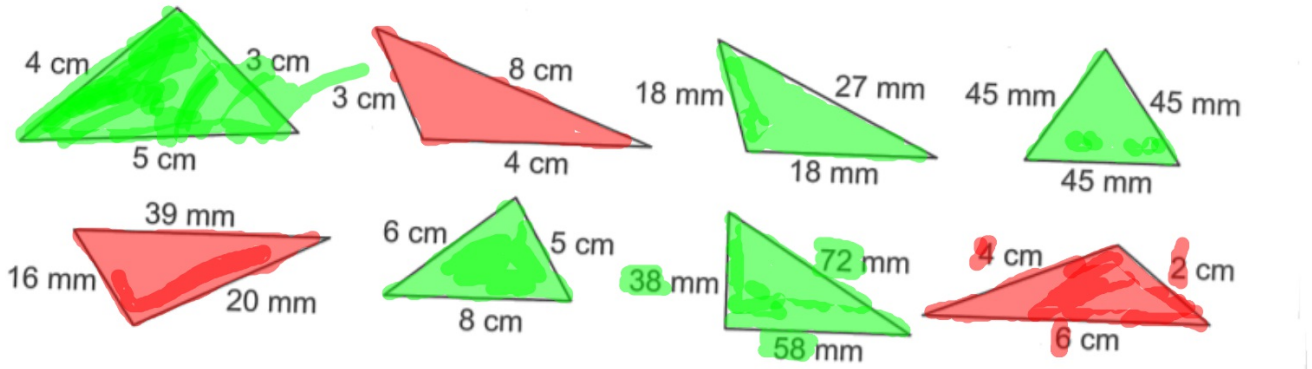
5. Trojúhelníky, které **lze** sestrojit, vybarvi **zeleně**, trojúhelníky, které sestrojit **nelze**, vybarvi **červeně**:



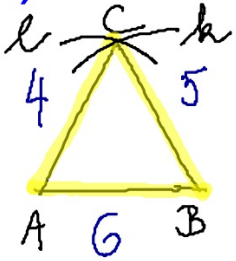
Konstrukce trojúhelníku

Δ ABC, a = 5 cm, b = 4 cm, c = 6 cm

1) náčrt

2) trojúhelníková nerovnost

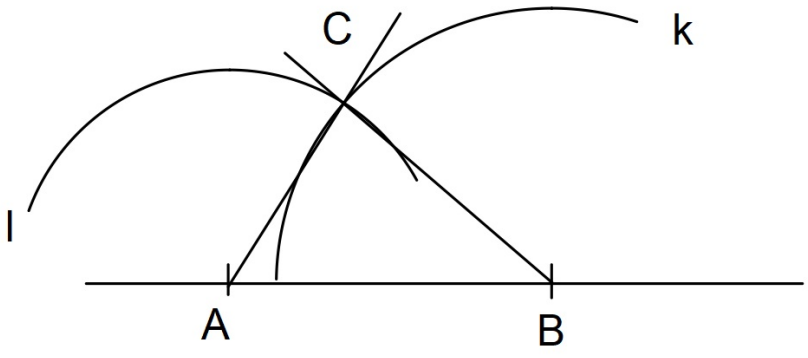
3) konstrukce



$5+6>4$ ✓

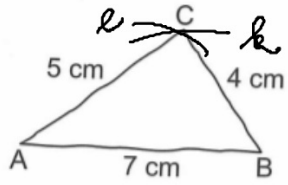
$5+4>6$ ✓

$4+6>5$ ✓

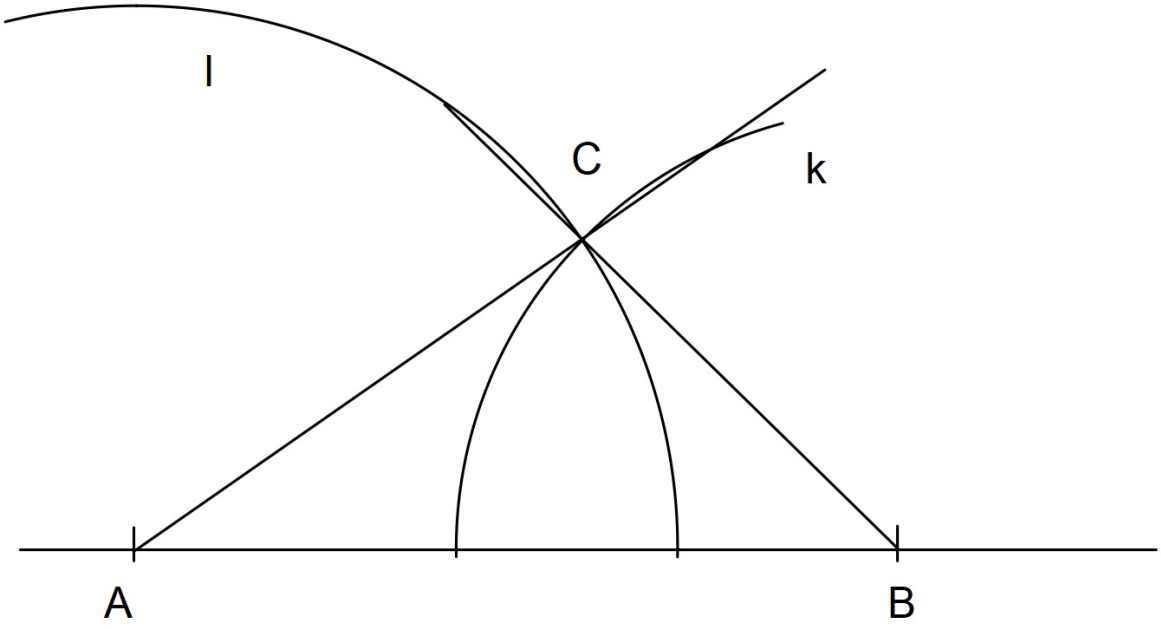


6. Narýsuj trojúhelník podle náčrtku (nejprve zjisti, zda takový trojúhelník existuje):

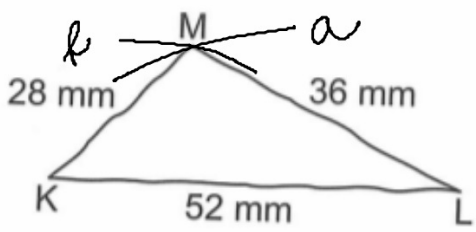
a)



$7+4>5$ ✓
$7+5>4$ ✓
$4+5>7$ ✓



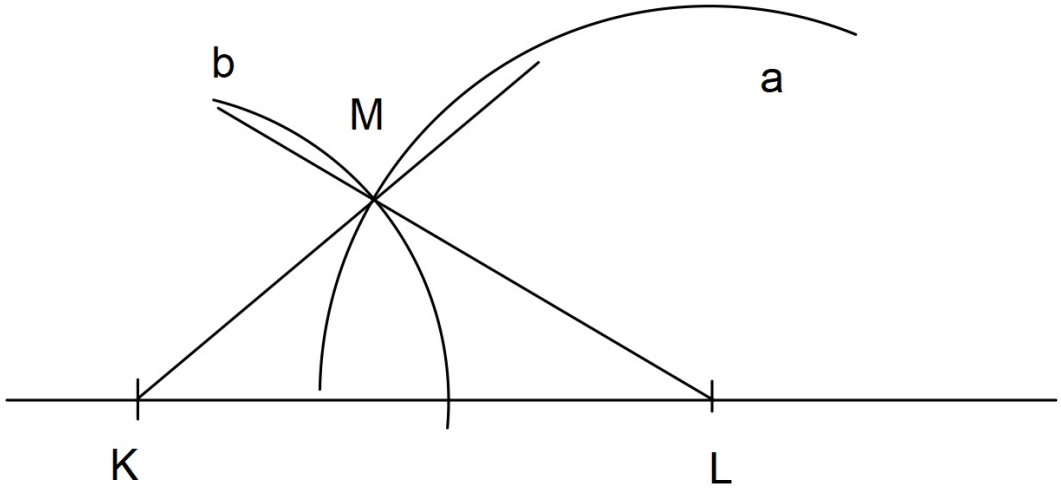
b)



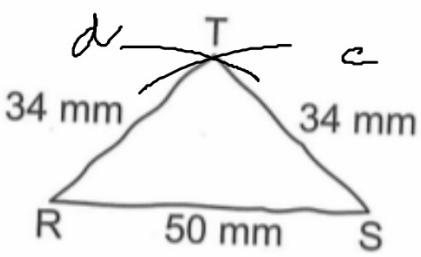
$28+36>52$ ✓

$36+52>28$ ✓

$28+52>36$ ✓



c)



$34+34>50$ ✓

$34+50>34$ ✓

$34+50>34$ ✓