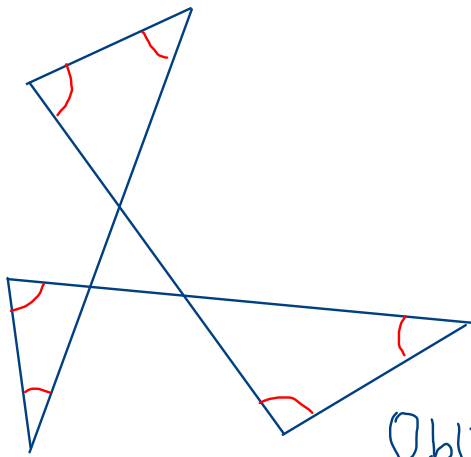


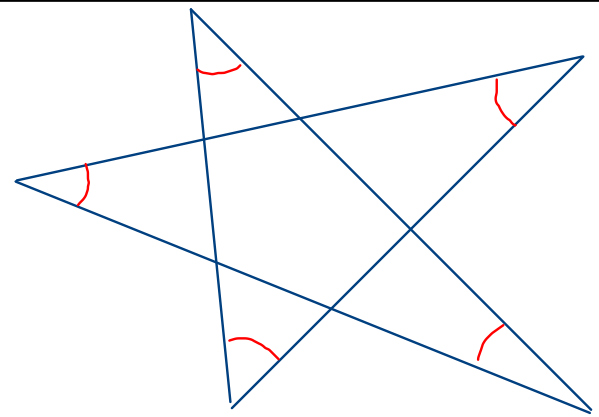
Skąd te kąty?
Waldemar Pompe

W zadaniach 3-19 należy wyznaczyć miarę kąta oznaczonego przez „?”

1.

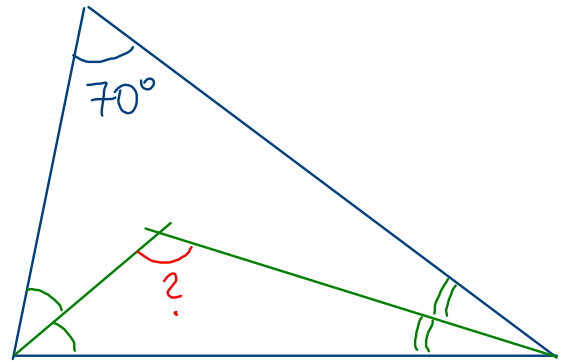


2.

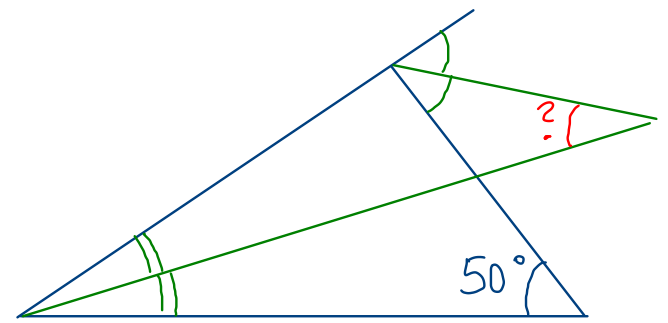


Oblicz sumę miar zaznaczonych kątów.

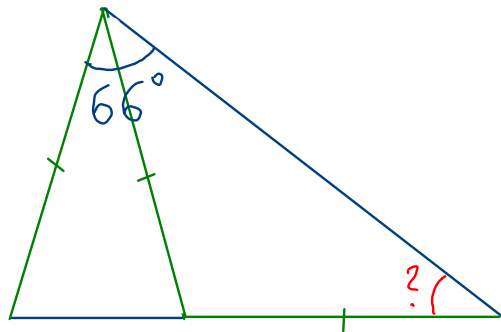
3.



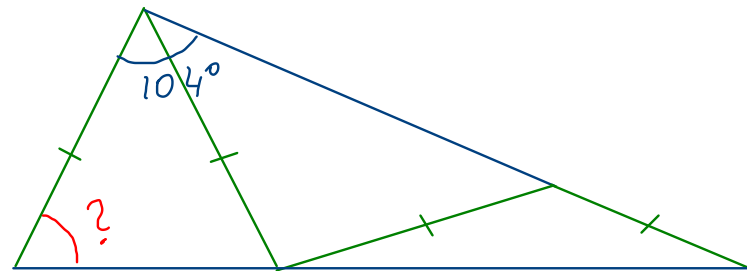
4.



5.

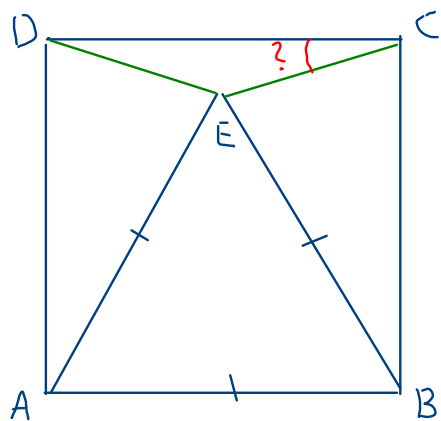


6.

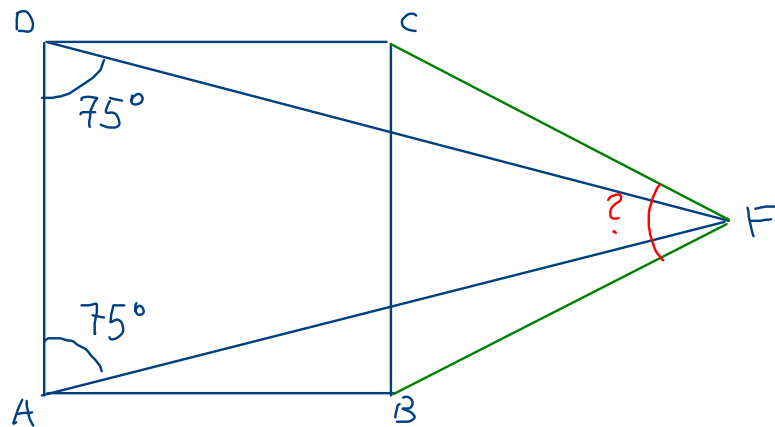


Odanki --- są równej długości

7.

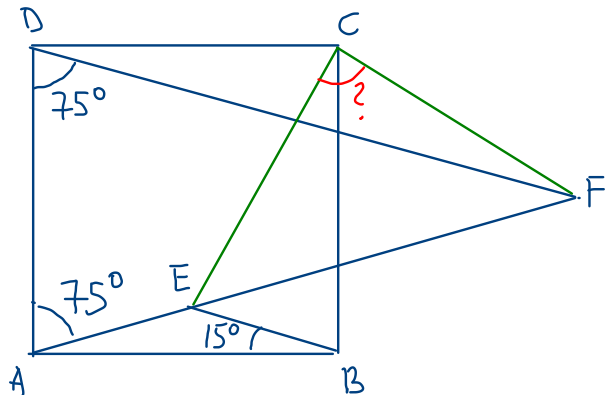


8.



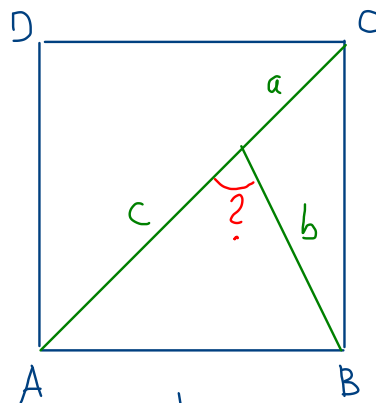
ABCD - kwadrat

9.



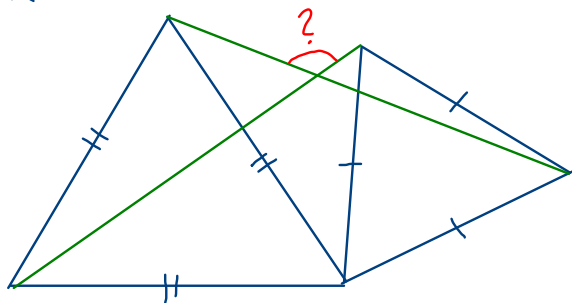
ABCD - kwadrat

10.

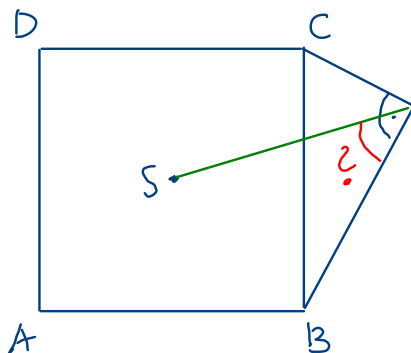


$$a + b = c.$$

11.

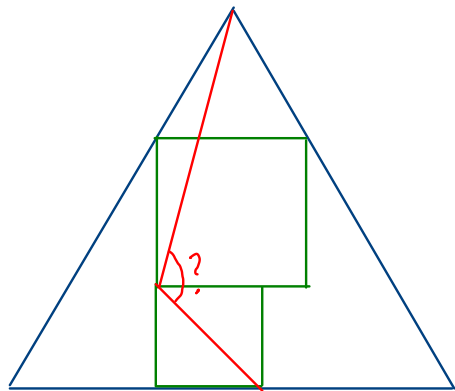


12.



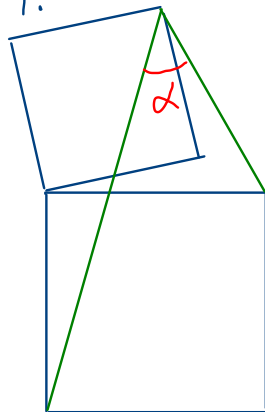
S - środek kwadratu ABCD.

13.



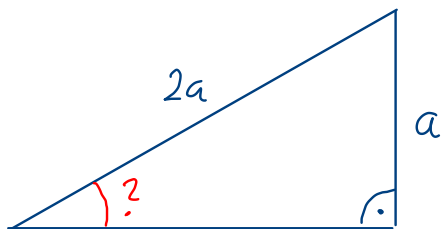
\triangle - równoboczny, \square - kwadrat

14.

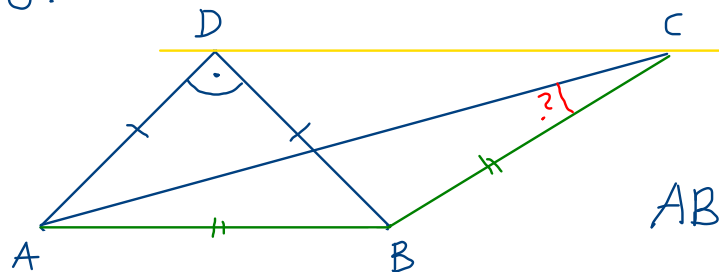


pole większego kwadratu =
2 × pole mniejszego kwadratu

15.

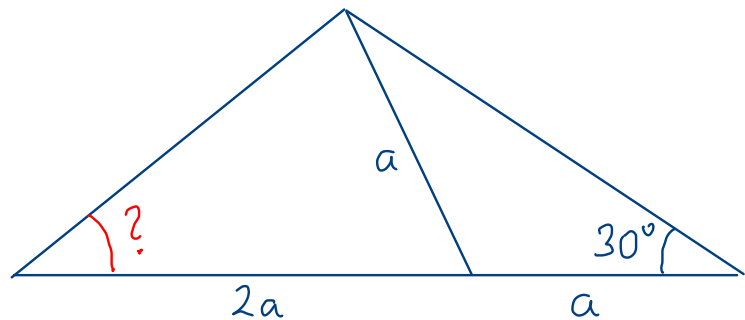


16.

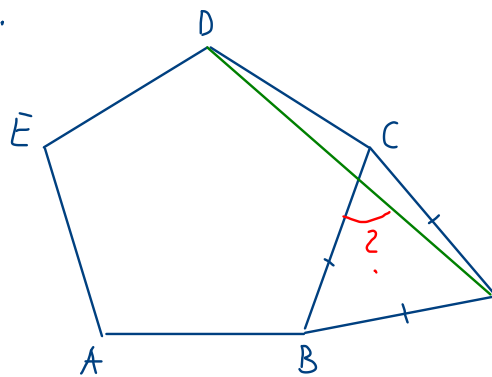


$AB \parallel CD$.

17.

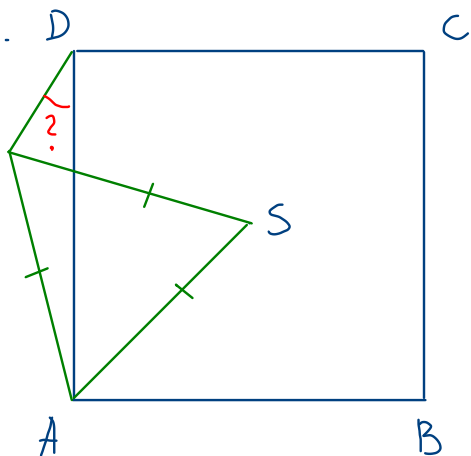


18.



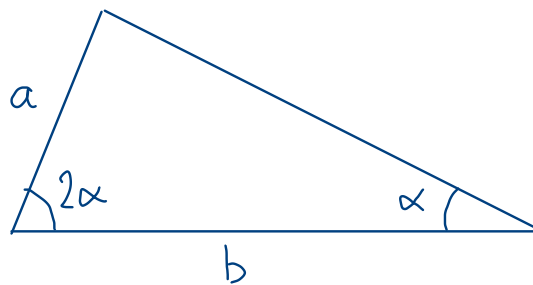
ABCDE - pięciokąt foremny

19.



S - środek
kwadratu ABCD.

20.



$\alpha < 45^\circ$. Wykaż, że $b < 3a$.

Źródła:

Zadania 1 i 2: Joanna Bednarczuk, Jerzy Bednarczuk
„Matematyczne gwiazdki”, Wydawnictwo Aksjomat 2020

Zadanie 6: XV Olimpiada Matematyczna Juniorów (2019/2020)
zawody I stopnia, część korespondencyjna.

Zadania 10, 13, 14, 16: Catriona Shearer (twitter - @Cshearer41)