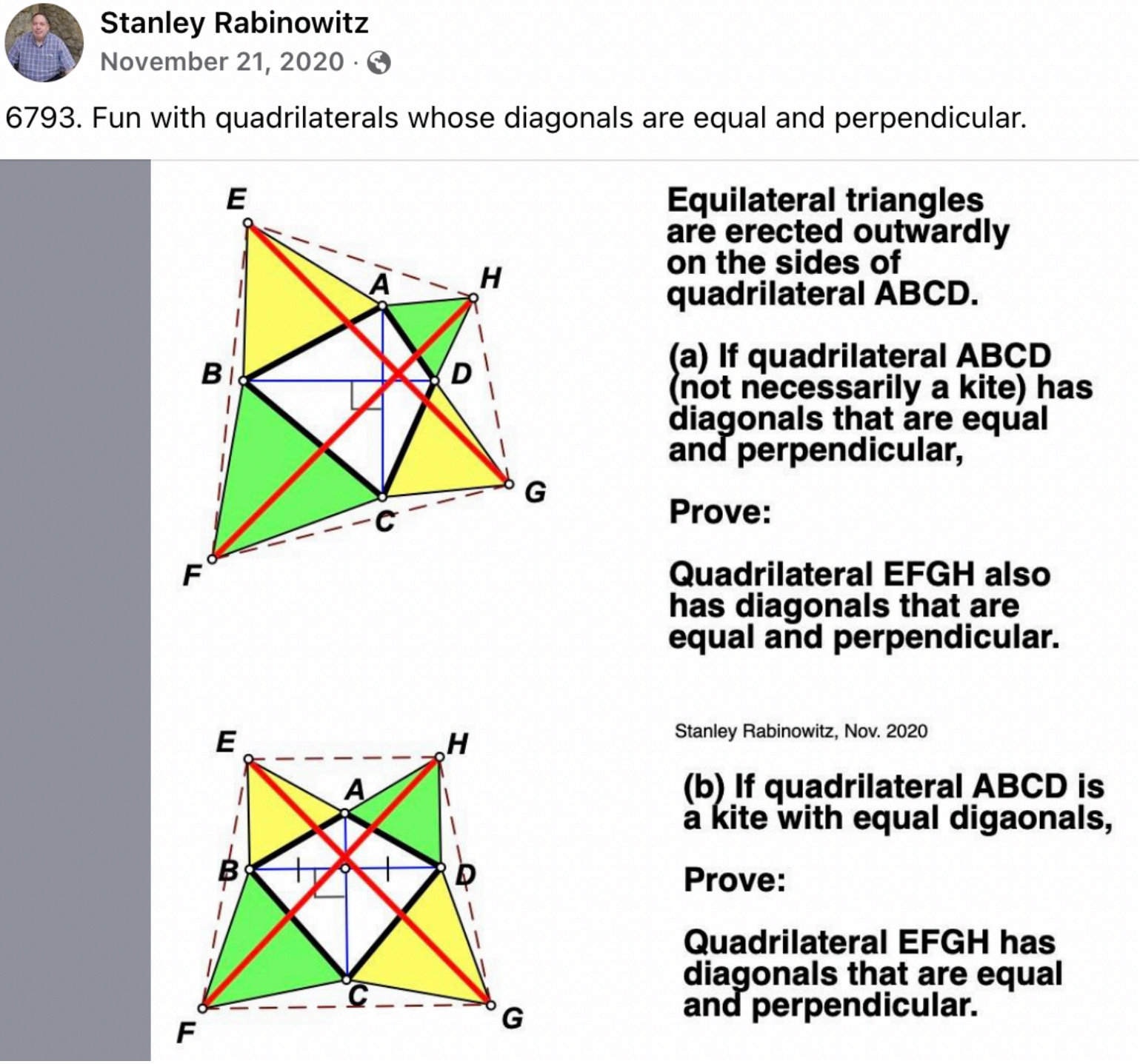
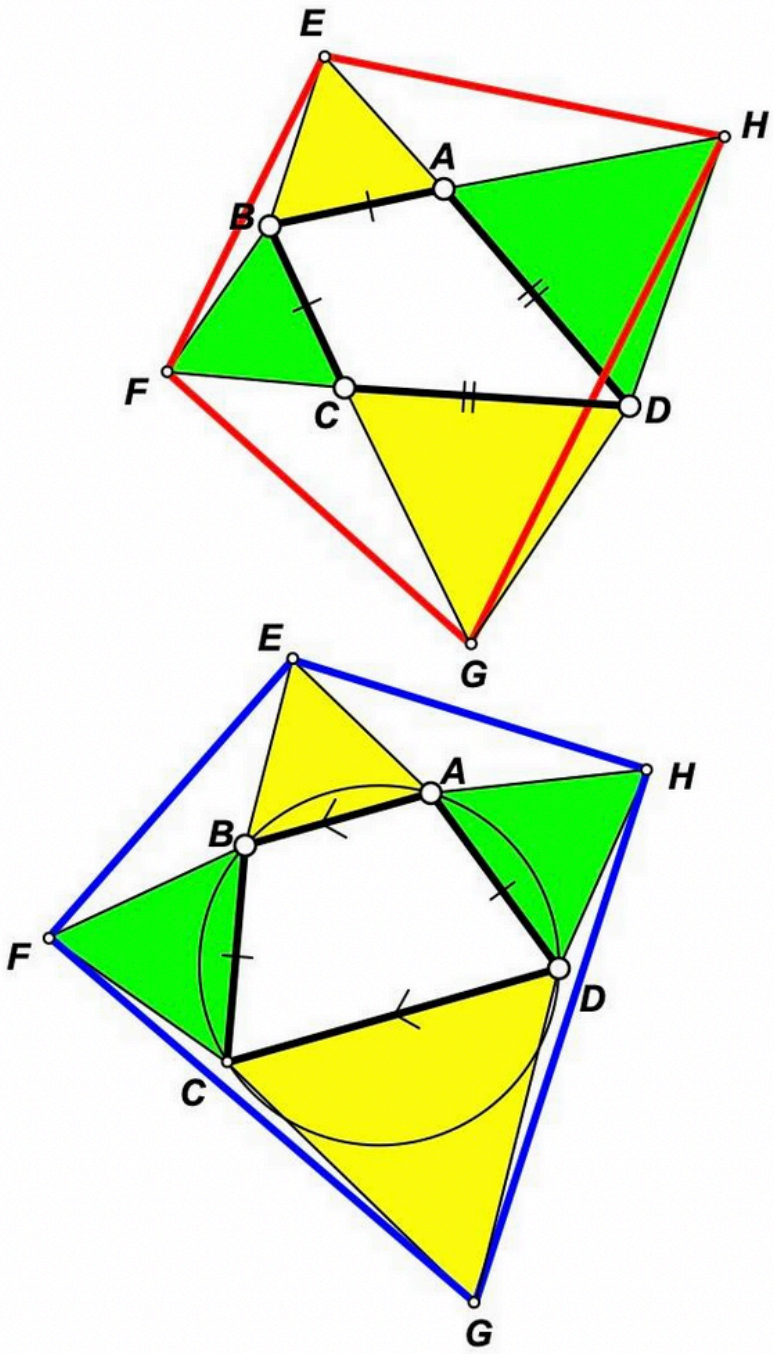

Stanley Rabinowitz
November 21, 2020 ·
6793. Fun with quadrilaterals whose diagonals are equal and perpendicular.
E
A
H
B
D
G
C
F
Equilateral triangles are erected outwardly on the sides of quadrilateral ABCD.
(a) If quadrilateral ABCD (not necessarily a kite) has diagonals that are equal and perpendicular,
Prove:
Quadrilateral EFGH also has diagonals that are equal and perpendicular.
E
H
A
B
D
C
F
G
Stanley Rabinowitz, Nov. 2020
(b) If quadrilateral ABCD is a kite with equal digaonals,
Prove:
Quadrilateral EFGH has diagonals that are equal and perpendicular.

Stanley Rabinowitz
November 20, 2020 ·

6791. More dual quadrilateral problems.



Equilateral triangles are erected outwardly on the sides of quadrilateral ABCD.

(a) If quadrilateral ABCD is a kite,

Prove:

Quadrilateral EFGH is an isosceles trapezoid.

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(b) If quadrilateral ABCD is an isosceles trapezoid,

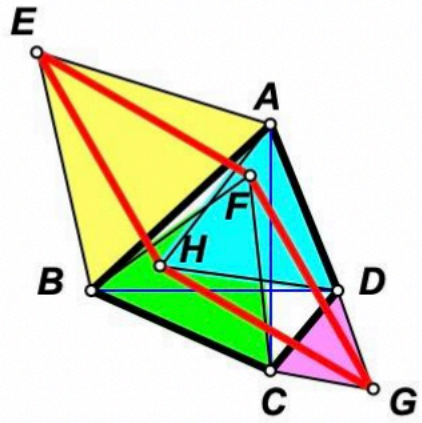
Prove:

Quadrilateral EFGH is a kite.

Stanley Rabinowitz

November 21, 2020 ·

6794. colorful rhombii

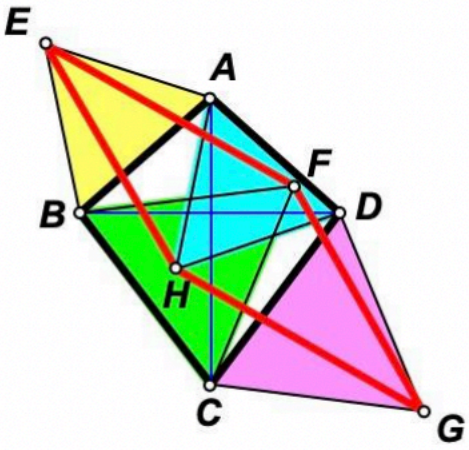


Equilateral triangles are erected on the sides of quadrilateral ABCD, external/internal/external/internal.

(a) If quadrilateral ABCD (not necessarily a kite) has diagonals that are equal and perpendicular,

Prove:

Quadrilateral EFGH is a rhombus.



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(b) If quadrilateral ABCD is a kite with equal digaonals,

Prove:

Quadrilateral EFGH is a rhombus.