GEOMETRY OF 2D SHAPES Exercises
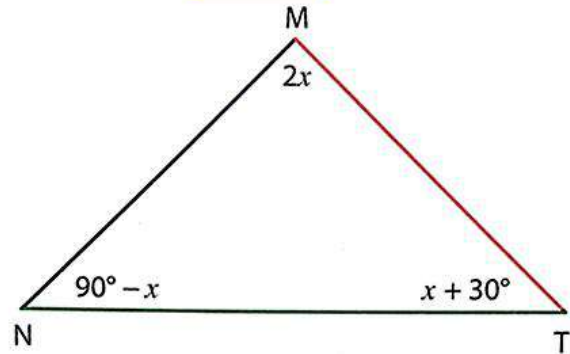
EXERCISE 13.1
Pg. 126 (No. 1a-d, 2a)
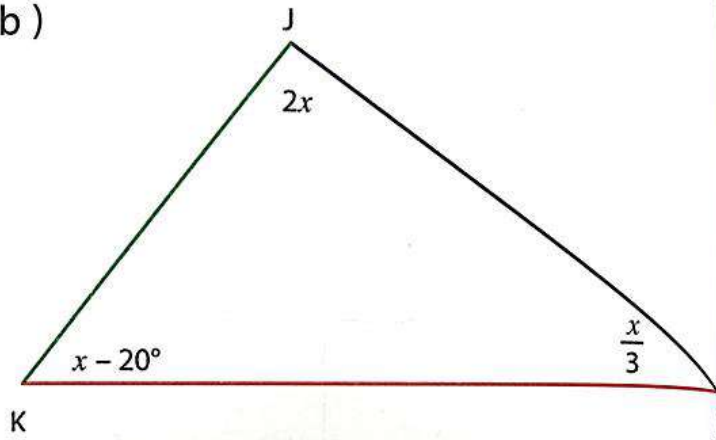
1. Solve for x and classify each triangle.

a)

Triangle MNT: angle at M = $2x$, angle at N = $90° - x$, angle at T = $x + 30°$

b)

Triangle JKL: angle at J = $2x$, angle at K = $x - 20°$, angle at L = $\frac{x}{3}$

c)

Triangle GHK: angle at G = $3x - 15°$, angle at H = $x + 10°$, sides GH and GK marked equal

d)

angle at D = $60°$, angle $2x - 20°$ at E, angle $3x$ at F, points E, F, G
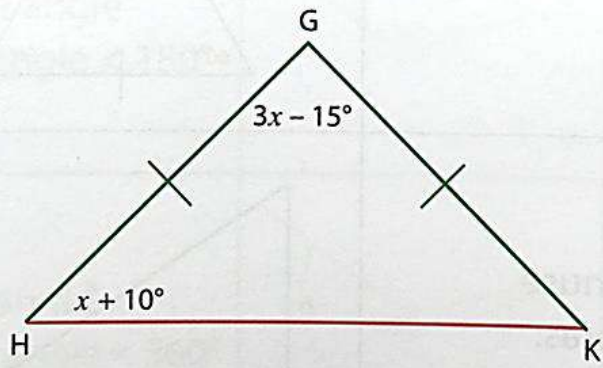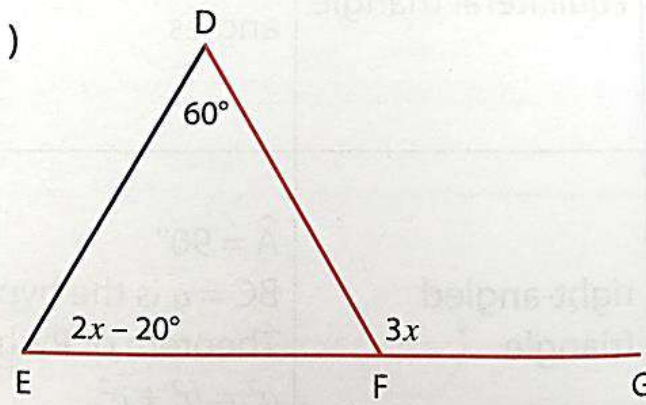
2. Solve for x, y and z and classify, with reasons, the t

a)

Triangle UVW with T at apex: angle $2x$ and $x + 15°$ at T, angle $2x - 10°$ at U, angles z and y at V, angle $50°$ at W
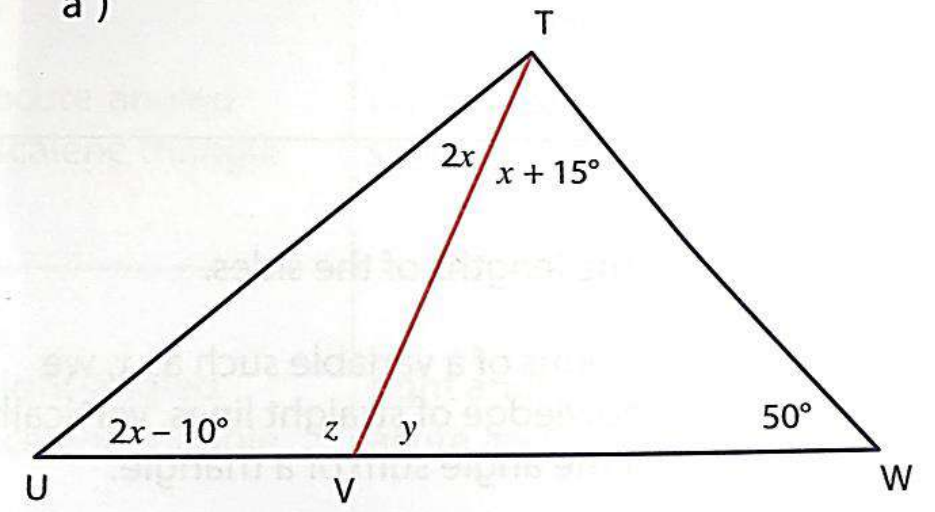
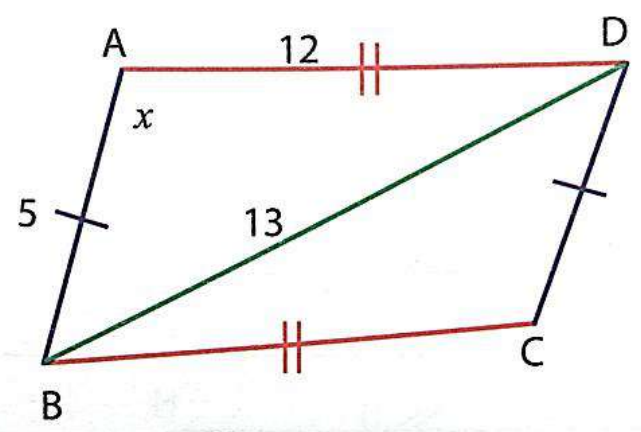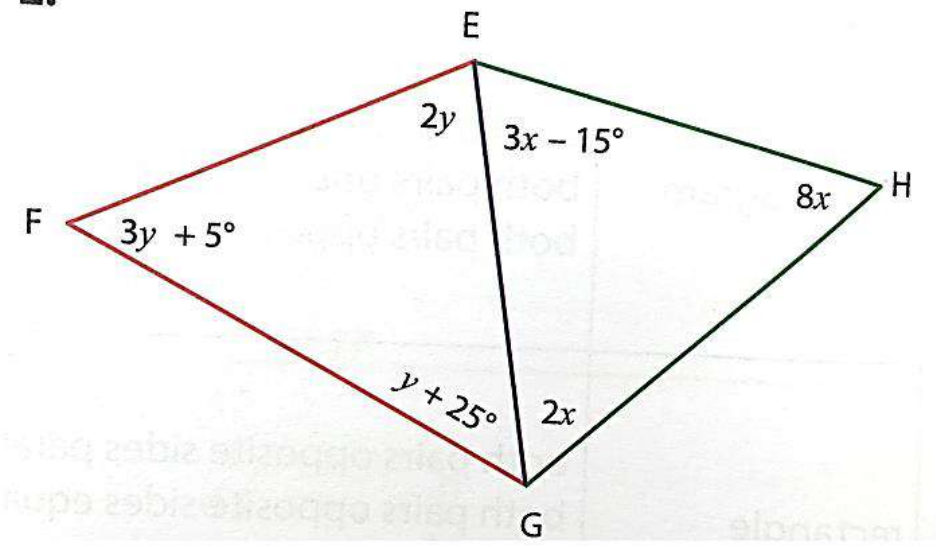# EXERCISE 13.2
Pg. 128 (No. 1,2,3)

Solve for x and/or y where necessary and then classify each quadrilateral.

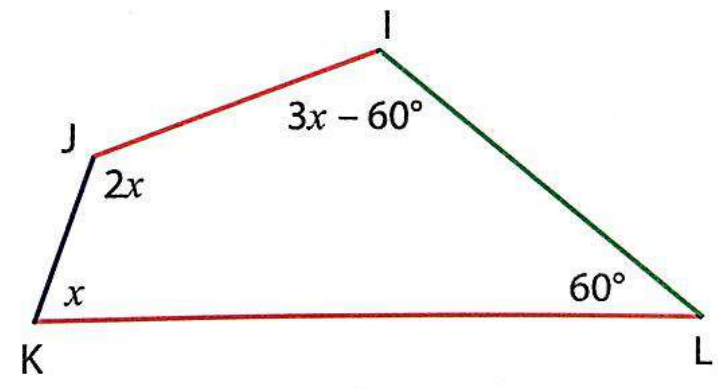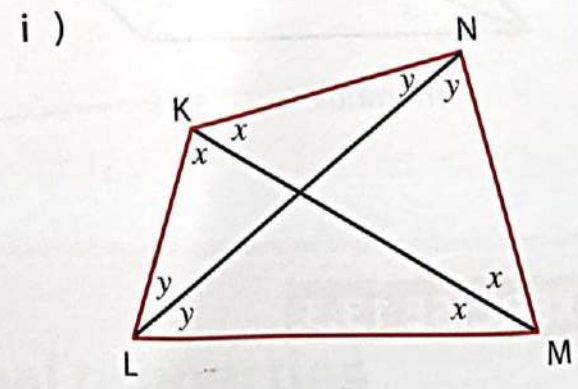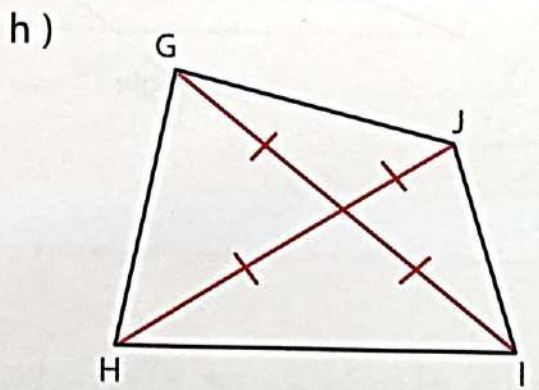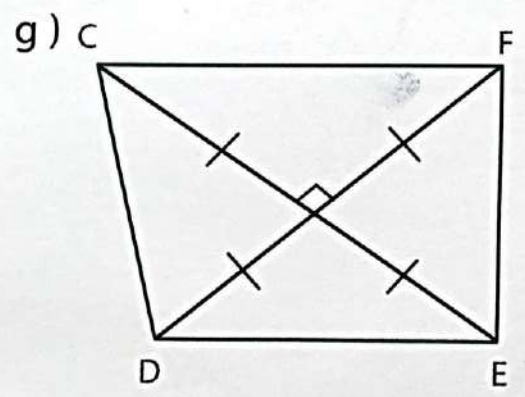Reasons must be given. Quarilaterals have not been drawn to scale.

1.

2.

3.

EXERCISE 13.4

Pg. 128 (No. 1d-i)

Properties of Quads Pg.127
Or Sharp Worksheet on
Google Classroom

Classify each quadrilateral and briefly justify your answer. The sketches are not drawn to scale

a) A D

done

B

C

b) E H

done

G

c) J M

done

K L

d) N Q

O P

e) R U

x y

y x

S T

f) V A

W Z

g) C F

D E

h) G J

H I

i) N

K x

y

y x

y x

L M
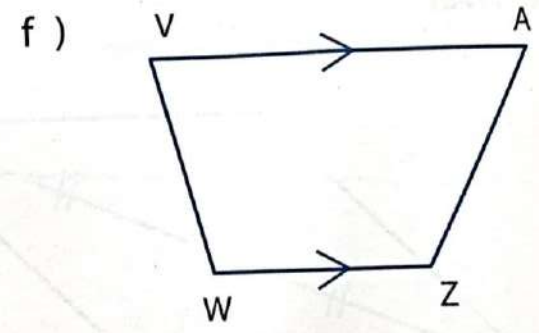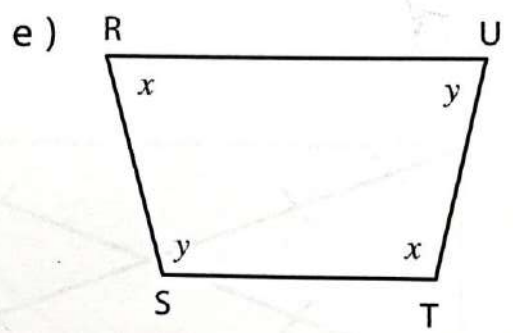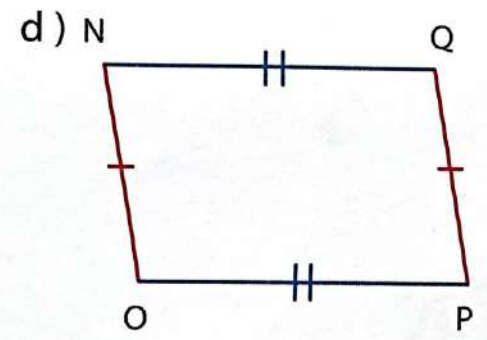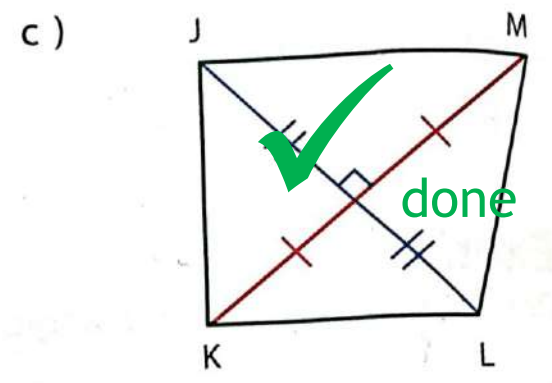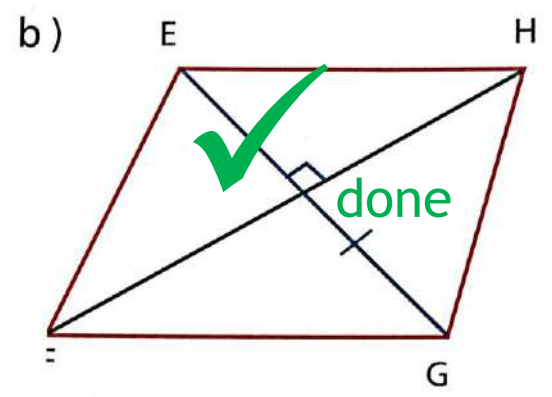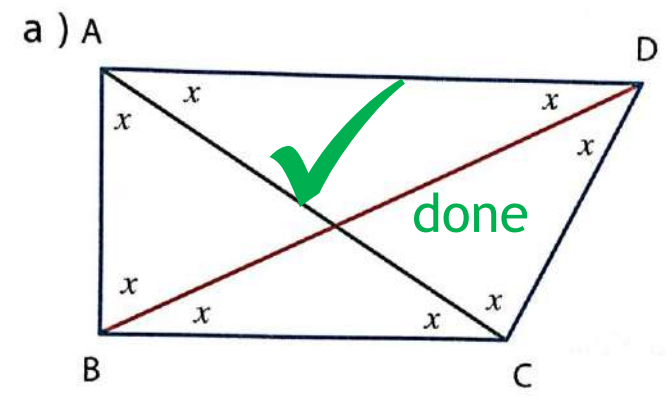
EXERCISE 13.5
Pg. 131 (No. 2ab)
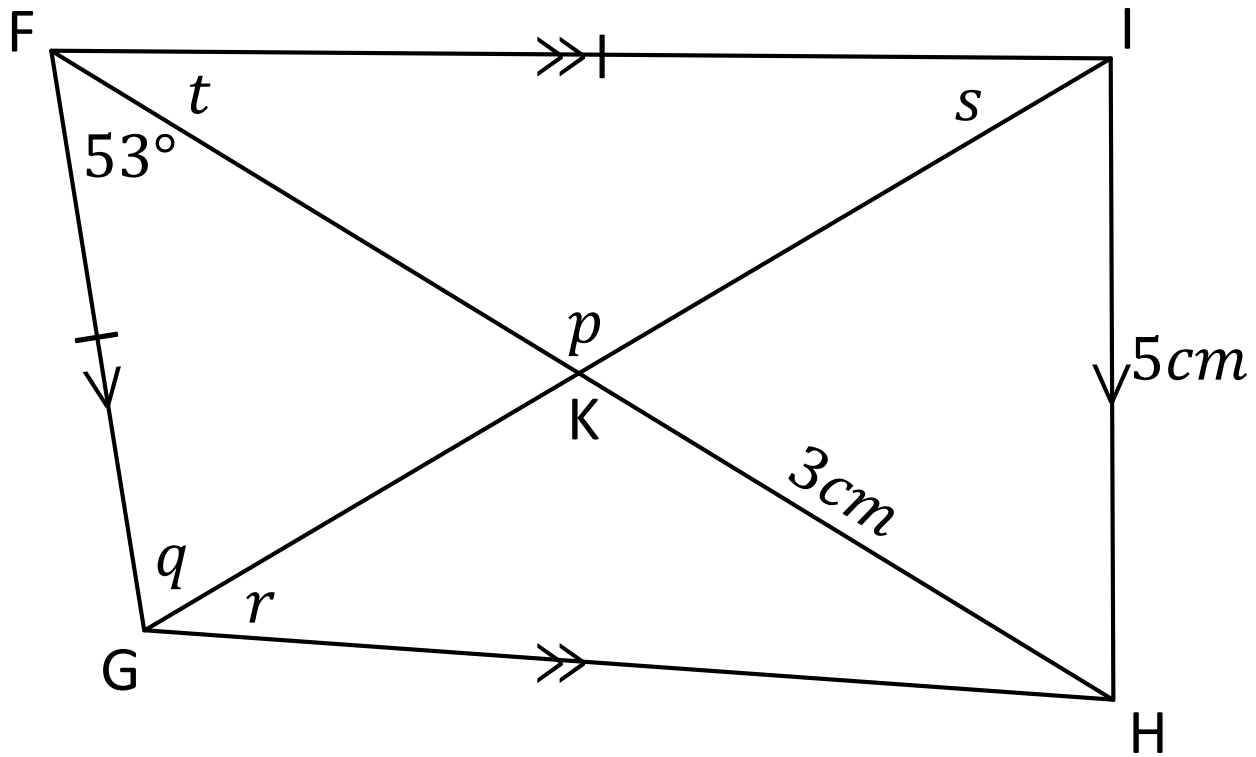
a.) Classify quadrilateral FGHI, giving reasons.

b.) Calculate, giving reasons, p, q, r, s and t.