H. Geometry: Quadrilateral Review   Name   Answer key

Give the most specific name for the quadrilateral.

1)   2)   3)
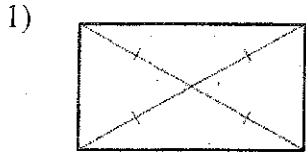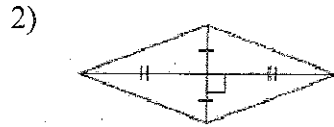
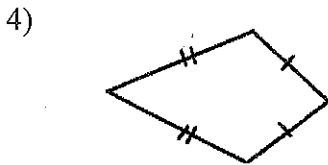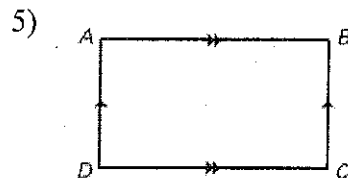__Rectangle__   __Rhombus__   __Isosceles trap.__

4)   5)   6)
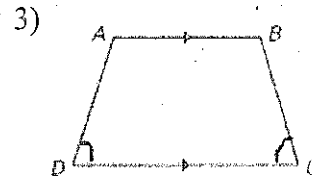
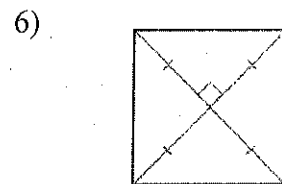__Kite__   __parallelogram__   __square__

Determine whether the statement is sometimes, always, or never true.

7) Diagonals of a trapezoid are congruent. __Sometimes (isosceles)__

8) Opposite sides of a rectangle are congruent. __Always__

9) A square is a rectangle. __Always__

10) A rhombus is a square. __Sometimes__

11) All angles of a parallelogram are congruent. __Sometimes__

12) Opposite angles of an isosceles trapezoid are congruent. __Never__

13) The diagonals of a parallelogram are perpendicular. __Sometimes__
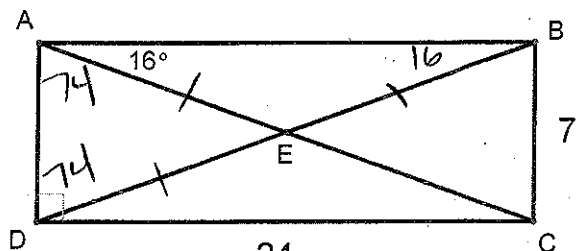
14) ABCD is a rectangle, find the indicated measurements.

$m\angle ADE = 74^0$

$m\angle AEB = 148^0$

$AC = 8$

$EB = 4$

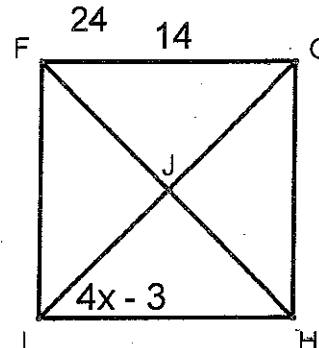15) FGHI is a square, find the indicated measurements.

$x = 12$

$m\angle GJH = 90^0$

$m\angle JHI = 45^0$

$JH = 9.9$

$IG = 19.8$

$14^2 + 14^2 = c^2$

$4x - 3 = 45$

$4x = 48$

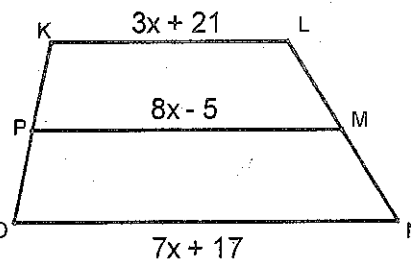16) PM is the midsegment of trapezoid KLNO, find the indicated measures.

$x = 8$

$KL = 45$

$\dfrac{10x + 38}{2} = 8x - 5$

$3(8) + 21$
$24 + 21$

$10x + 38 = 16x - 10$
$-6x = -48 \quad X = 8$

K   3x + 21   L
P   8x - 5   M
O   7x + 17   N

17) Given rhombus ABCD, find the indicated measures.

$BD = \underline{10}$

$AD = \underline{13}$

$m\angle ADC = \underline{134^\circ}$

$m\angle BAE = \underline{46^\circ}$
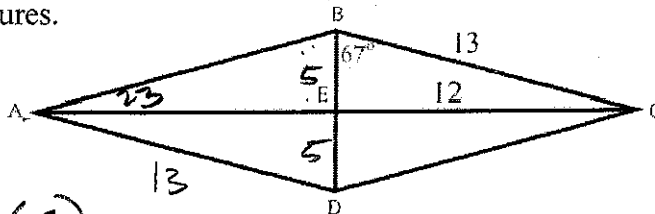
Area= 120

Perimeter= $4(13) = 52$

B 67° 13
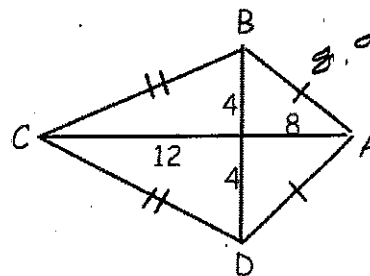A 13 5 E 12 C
13 5
D

$\frac{1}{2}(10)(12)$

$60 + 60 = 120$

18) Given kite ABCD, find the lengths of all the sides.

$AB = 8.9$

$AD = 8.9$

$BC = 12.6$

$DC = 12.6$

Area= 80

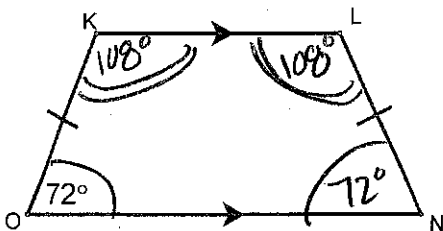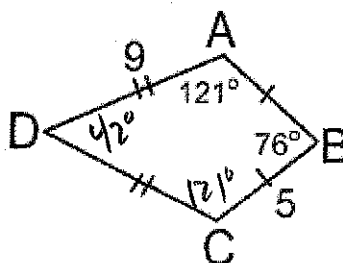Perimeter= 44.24

B 8.9
C 4 8 A
12 4
D

19) Find the measures of all angles of the isosceles trapezoid.

K 108°   L 108°
O 72°   72° N

20) Given kite ABCD, find the following measures.

$m\angle BCD = 121^\circ$

$m\angle ADC = 42^\circ$

$AB = 5$

$DC = 9$

A
9 121°
D 42° 76° B
121° 5
C