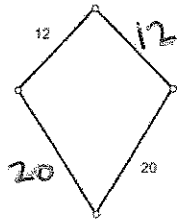
14.5

PRACTICE: KITES & OTHERS

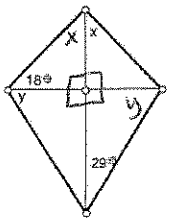
Key

1. Kite



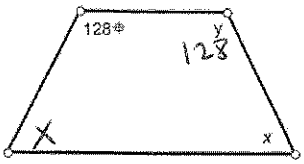
Perimeter = 64

2. Kite



x = 72°, y = 61°

3. Isosceles Trapezoid

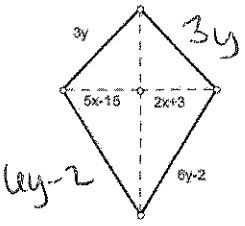


x = 52°, y = 128°

$128 + x = 180$

$x = 52$

4. Kite's Perimeter=86 ft



x = 6, y = 5

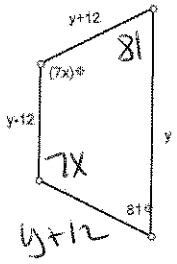
$5x - 15 = 2x + 3$

$x = 6$

$3y + 3y + 6y-2 + 6y-2 = 86$

$y = 5$

5. Isosceles Trapezoid's Perimeter=164 cm



x = 14.14, y = 38

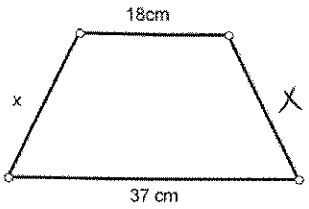
$7x + 81 = 180$

$x = 14.14$

$y+12 + y + y+12 + y-12 = 164$

$y = 38$

6. Isosceles Trapezoid's Perimeter=85 cm

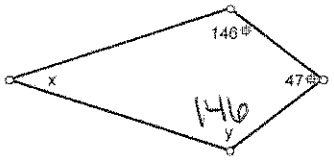


x = 15

$18 + x + 37 + x = 85$

$x = 15$

7. Kite

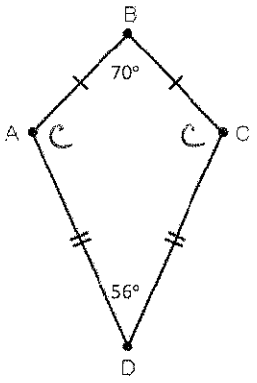


x = 21, y = 146

$X + 146 + 47 + 146 = 360$

$X = 21$

8. Kite



$\angle C = 117$

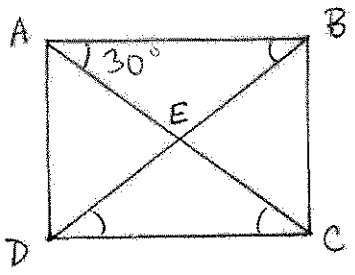
$C + 70 + C + 56 = 360$

$C = 117$

In #1-6, complete each statement. Use the words *parallelogram, rectangle, rhombus,* or *square.*

1. Every rectangle is also a parallelogram
2. Every rhombus is also a parallelogram
3. Every square is also a parallelogram a rhombus and a rectangle.
4. A parallelogram with ≅ diagonals is a rectangle or a square.
5. A parallelogram with ⊥ diagonals is a rhombus or a square.
6. A parallelogram whose diagonals are ⊥ bisectors of each other is a rhombus or a square.

For #7-12, ABCD is a rectangle.



use for #7-12

7. If AE = 3, then AC = 6, BE = 3, BD = 6, and DE = 3.

8. The three angles congruent to <ABE are:

∠BAE, ∠DCE, ∠CDE

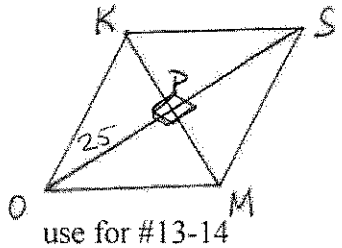
9. If m<BAE = 30, then m<ABE = 30°, m<AEB = 120°, m<BEC = 60°, m<EBC = 60°, m<BCE = 60°, m<CDE = 30° and m<EDA = 60°.

10. Four isosceles triangles in the figure are: △AEB, △DEC, △BEC, △AED.

11. Are the diagonals of the rectangle congruent? Yes

12. Are the diagonals of the rectangle perpendicular to each other? No

For #13-18, KOMS is a rhombus.



use for #13-14

13. If m<KOS = 25, then m<KOM = 50°.

14. ΔKOS is an isosceles triangle. Three other isosceles triangles are:

△MOS, △KOM, △KSM

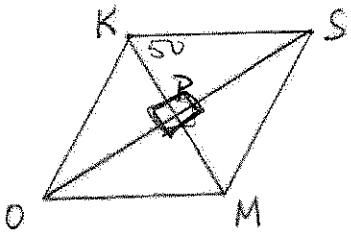
(over)

15. Three properties of $\overline{KM}$ and $\overline{OS}$ are:

a) $\overline{KM} \perp \overline{OS}$

b) $\overline{KM}$ and $\overline{OS}$ bisect each other

c) $\overline{KM}$ and $\overline{OS}$ bisect angles



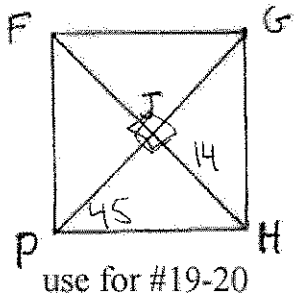
use for #15-18

16. If m<SKP = 50, then m<OKP = 50°, m<KOP = 40°, m<MOP = 40°, m<OMP = 50°, m<SMP = 50°, m<MSP = 40°, m<KSP = 40°.

17. Are the diagonals of the rhombus congruent? No

18. Are the diagonals of the rhombus perpendicular to each other? Yes

For #19-20, FPHG is a square.



use for #19-20

19. m<GFJ = 45, m<PFJ = 45, m<FPJ = 45,
m<HPJ = 45, m<PHJ = 45, m<GHJ = 45,
m<HGJ = 45, m<FGJ = 45, m<FJG = 90.

20. If HJ = 14, then FH = 28, GP = 28,
PJ = 14, JG = 14, FJ = 14.

21. The properties that a rhombus and a rectangle have in common are:
5 properties of parallelograms

22. Three properties of a rhombus that are not properties of every parallelogram are:
diagonals are ⊥
diagonals are ∠ bisectors
4 ≅ sides

23. Three properties of a square that are not properties of every rectangle are:
Same as 22

24. Two properties of a square that are not properties of every rhombus are:
diagonals are ≅
4 ≅ right ∠s