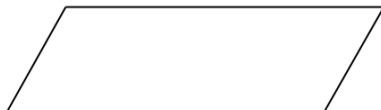Name: _____
Date: _____ Period: _____

You **MUST** show all work to receive full credit
Study all of your notes, flipbook, homework, and quiz from Chapter 10 to be fully prepared

1. Practice Labeling the Quadrilateral FISD. You must label in order around the figure every time.
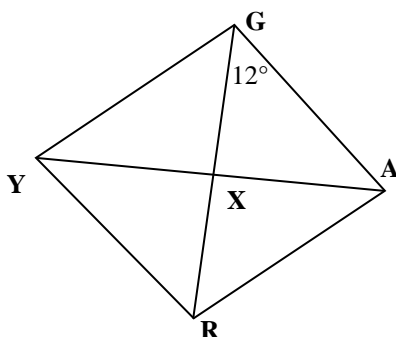
2. GARY is a rhombus. Find each.

A) ∠YGA

B) ∠RXY

C) ∠RAY

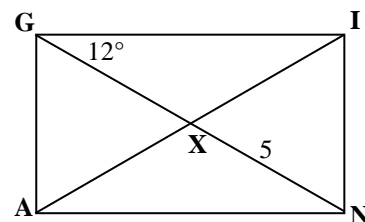3. GINA is a rectangle. Find each.

A) XA

B) ∠GNI

C) ∠NAI

4. KATE is a rectangle whose diagonals meet at R. If m∠KRA = 116°, m∠ERT = (4c)°, m∠RET = (2b)°, and m∠ART = (4a)°, find the values of a, b, and c.

5. EFGH is a rectangle. If m∠HEG = (2x + 5)° and m∠EFH = (7x – 5)°, find x and m∠FHG.

6. RSTW is a rectangle whose diagonals intersect at Z. If RZ = 2x + 5 and SW = 5x – 20, find x and ZW.

7. ABCD is a rhombus. If m∠ABC = (4x + 45)° and m∠ADC = (x²)°, find x.

8. GHIJ is a rhombus whose diagonals intersect at K. If GK = 15 and HK = 36, find HI.

9. MATH is a square whose diagonals meet at Z. If MZ = 2x + 10 and HZ = 6x − 14, find HA.

10. ABCD is a square with diagonals intersecting at E, and BE = x + 1 and BD = 4x− 20, find x and CE.

11. If ABCD is a square and AD = 3x − 1 and the perimeter is 140, find x, then find CD.

12. ABCD is a trapezoid with legs BC and AD. EF is the midsegment. If AB = 3x-3, EF = 2x+1, and DC = 8, find the value of x.
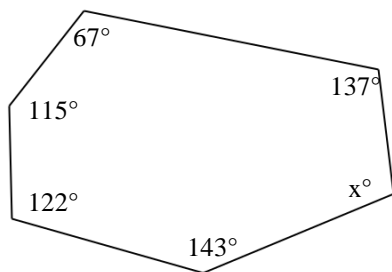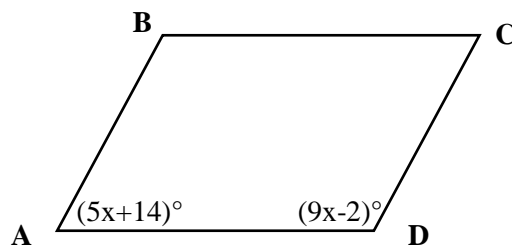
13. Find the value of x.
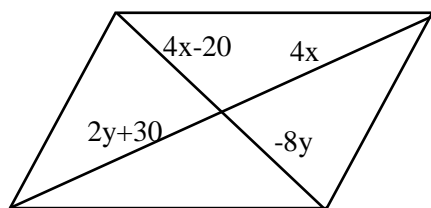
x = _____   x = _____

10

$2x - 1$

M   N

44

43   M   32   4x
            N
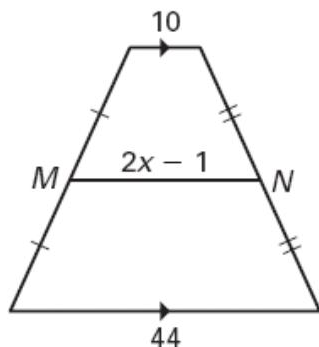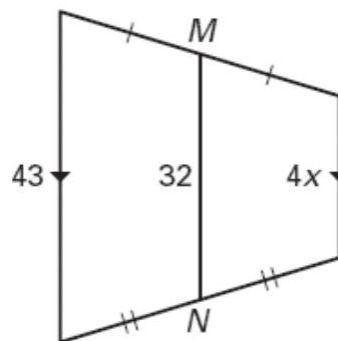
14. Find x   15. Find m∠B in parallelogram ABCD.

67°

137°

115°

x°

122°

143°

B   C

$(5x+14)°$ $(9x-2)°$

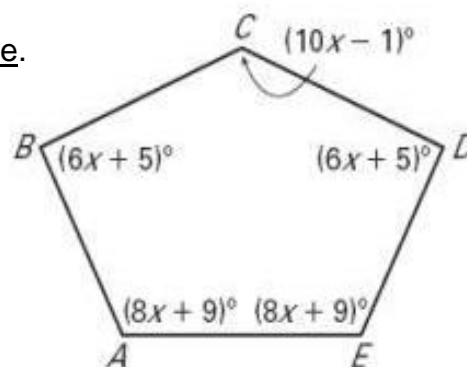A   D

16. Find x and y in the parallelogram.

4x-20   4x

2y+30   -8y

17. The side view of a light fixture is shown below.
    Find the value of x, then determine the value of <u>each angle</u>.

C $(10x - 1)°$

B $(6x + 5)°$ $(6x + 5)°$ D

$(8x + 9)°$ $(8x + 9)°$

A   E

18. Find the numbered angles and the perimeter of the Kite

$AC = 18$ $BD = 52$ $AD = 40$

m∠1 _____

m∠2 _____

m∠3 _____

m∠4 _____

m∠5 _____

P = _____
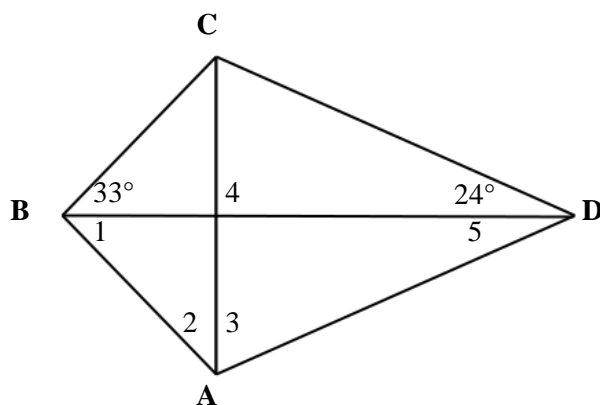
19. One Diagonal of a rhombus makes an angle of 27° with a side of the rhombus. If each side of the rhombus has a length of 6.2 inches, find the length of each diagonal.
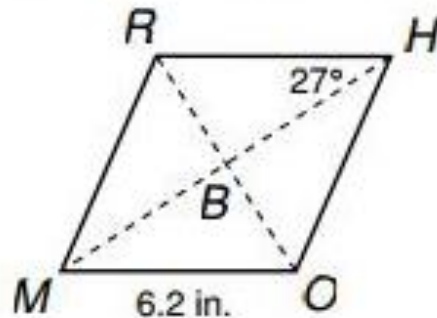
20. List all the properties that apply to each quadrilateral. Properties may be used multiple times.

Parallelogram ____ ____ ____ ____ ____

Rhombus ____ ____ ____ ____ ____ ____ ____ ____

Rectangle ____ ____ ____ ____ ____ ____ ____

Square ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

Kite ____ ____ ____ ____ ____

Trapezoid ____ ____

Isosceles Trapezoid ____ ____ ____ ____ ____

A. Both pairs opposite sides ||
B. One pair of sides are ||
C. Both pairs opposite sides ≅
D. All sides ≅
E. Non-parallel sides are ≅
F. 1 pair opposite angles ≅
G. Both pairs opposite angles ≅
H. All angles ≅
I. Base angles are ≅
J. Diagonals bisect each other
K. 1 diagonal bisects the other
L. Diagonals are ⊥
M. Diagonals are ≅
N. Diagonals bisect the angles
O. 1 diagonal bisects the angles
P. Same side interior angles supplementary
Q. Consecutive angles are supplementary
R. Consecutive sides are ≅