Name: _____

6.REV.2 – LESSONS 6.2 - 6.5

Past due on: _____ Period: _____

Use the properties of <u>squares</u> to set up and solve equations to find the value of the variable(s).

1.

$4x - 22$

$5y - 15$ ⬜ $3y + 3$

$2x + 4$

2.

Q ___ R
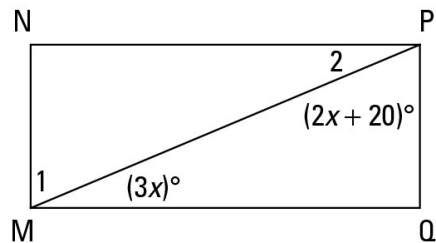
$5x°$

10

$(3x + 18)°$

$2y$

P ___ S
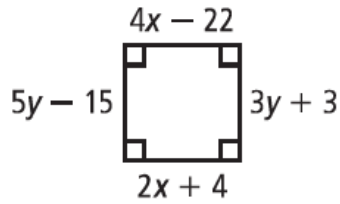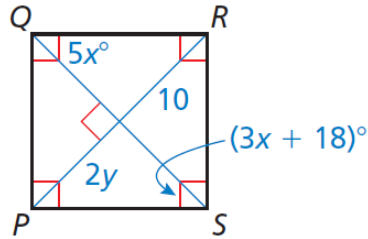
3. Find the perimeter and area of the square in Problem 1.
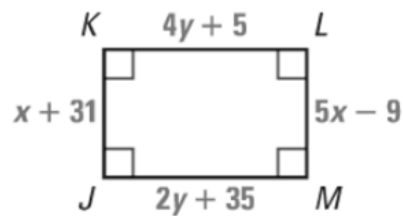
4. In $PQRS$, $QR = 8z - 14$ & $PQ = z^2 + 1$. Find the perimeter of $PQRS$.

Use the properties of <u>rectangles</u> to set up and solve equations to find the value of the variable(s).
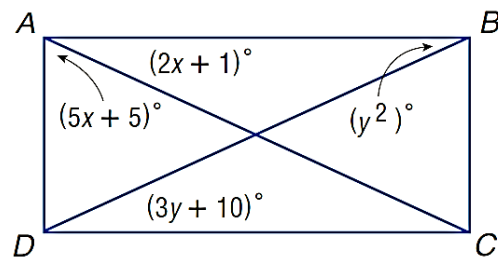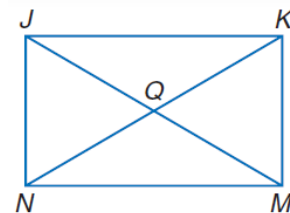
5.

N ___ P

2

$(2x + 20)°$

1 $(3x)°$

M ___ Q

6.

K $4y + 5$ L

$x + 31$ $5x - 9$

J $2y + 35$ M

7. Find $m\angle 1$ & $m\angle 2$ in $MNPQ$ (in problem 5).

8. Find the perimeter & the area of $JKLM$ (in problem 6).

9.

A ___ B

$(2x + 1)°$
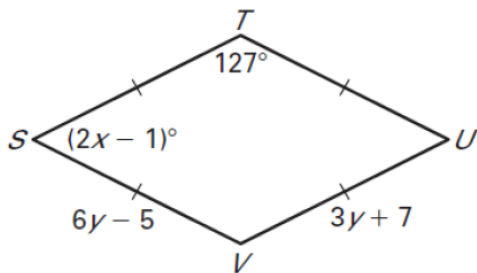
$(5x + 5)°$ $(y^2)°$

$(3y + 10)°$

D ___ C

10. If $m\angle NKM = x^2 + 4$ & $m\angle KNM = x + 30$, find $m\angle JKN$.

J ___ K

Q

N ___ M

Use the properties of <u>rhombuses</u> to set up and solve equations to find the value of the variable(s).

11.

$127°$ (at T)
S $(2x - 1)°$
$6y - 5$ V $3y + 7$
U

12.

S $3x + 30$ T
$3z$
$5z + 5$
$8x - 5$ E $(5y - 2)°$
$4z - 8$
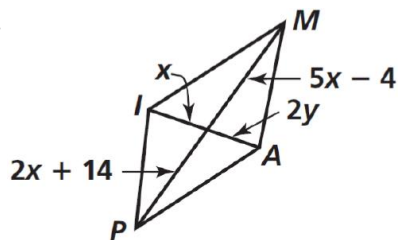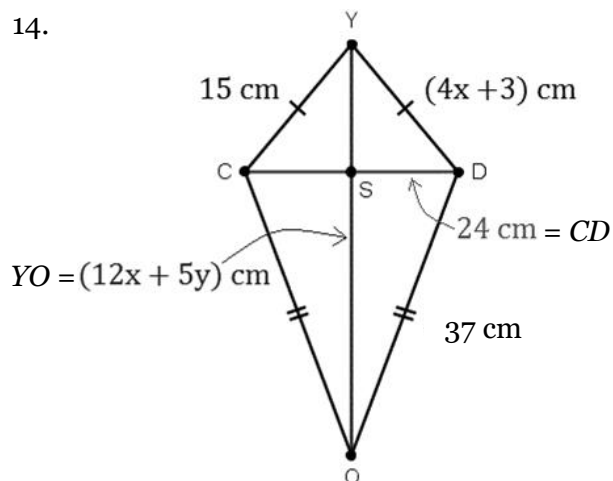R $(9y + 8)°$ A

13.

M
x $5x - 4$
I $2y$
$2x + 14$ A
P
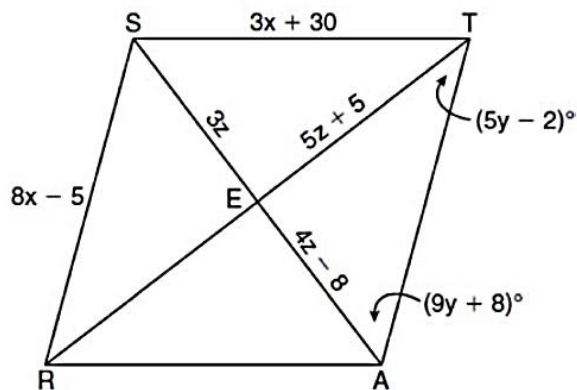
Use the properties of <u>kites</u> to set up and solve equations to find the value of the variable(s).

14.

Y
15 cm $(4x + 3)$ cm
C S D
24 cm $= CD$
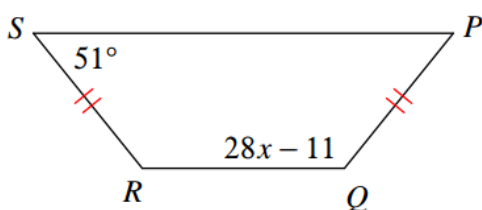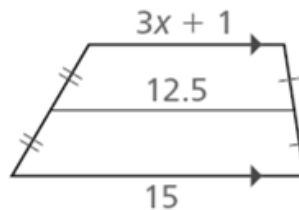$YO = (12x + 5y)$ cm
37 cm
O

a. Set up and solve an equation to find the value of x.

b. Use the Pythagorean Theorem to find YS & OS.

c. Set up and solve an equation to find the value of y.

d. Find the perimeter of $CODY$.

e. Find the area of $CODY$.

Use the properties of <u>trapezoids & isosceles trapezoids</u> to set up and solve equations to find the value of the variable(s).

15.

S P
$51°$
$28x - 11$
R Q

16.

$3x + 1$
12.5
15

17. Set up and solve a system of equations to find the value of x and y. Then find RA and TA.

T R
y $5x - 1$
D
P A
$TA = 3x + 12, RP = 2y$

Chapter 6: Quadrilaterals