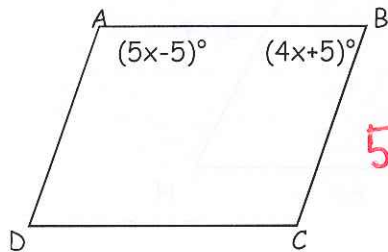


Solve for the missing measurements using the properties you know for each quadrilateral.

1) Parallelogram (Consecutive angles are Supplementary)



$$5x - 5 + 4x + 5 = 180$$

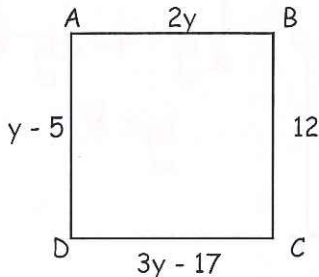
$$9x = 180$$

$$x = 20$$

$$m\angle A = \underline{95^\circ} \quad m\angle C = \underline{95^\circ}$$

$$m\angle B = \underline{85^\circ} \quad m\angle D = \underline{85^\circ}$$

2) Rectangle (Opposite sides are  $\cong$ )



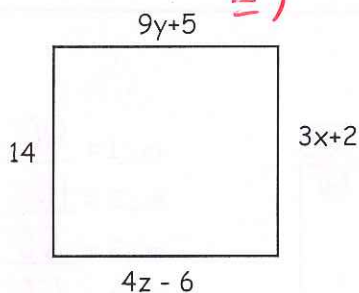
$$y - 5 = 12$$

$$y = 17$$

$$y = \underline{17} \quad AB = \underline{34}$$

$$CD = \underline{34} \quad AD = \underline{12}$$

3) Square (All sides are  $\cong$ )



$$3x + 2 = 14$$

$$3x = 12$$

$$9y + 5 = 14$$

$$9y = 9$$

$$x = \underline{4}$$

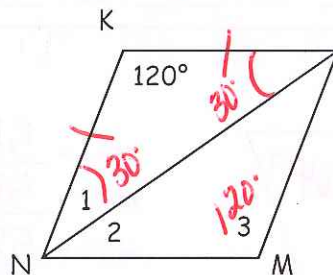
$$y = \underline{1}$$

$$z = \underline{5}$$

$$4z - 6 = 14$$

$$4z = 20$$

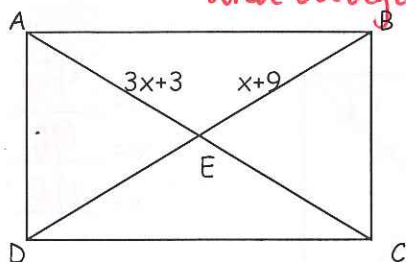
4) Rhombus (All sides are  $\cong$ , diagonals bisect angles)



$$m\angle 1 = \underline{30^\circ} \quad m\angle 3 = \underline{120^\circ}$$

$$m\angle 2 = \underline{30^\circ} \quad m\angle KLM = \underline{60^\circ}$$

5) Rectangle (Diagonals bisect each other and diagonals are  $\cong$ )



$$3x + 3 = x + 9$$

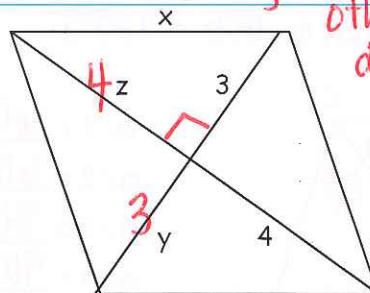
$$2x = 6$$

$$x = 3$$

$$AE = \underline{12} \quad BE = \underline{12} \quad EC = \underline{12}$$

$$ED = \underline{12} \quad AC = \underline{24} \quad BD = \underline{24}$$

6) Rhombus (Diagonals bisect each other, and diag. are  $\perp$ )



$$3^2 + 4^2 = x^2$$

$$25 = x^2$$

$$x = 5$$

$$x = \underline{5}$$

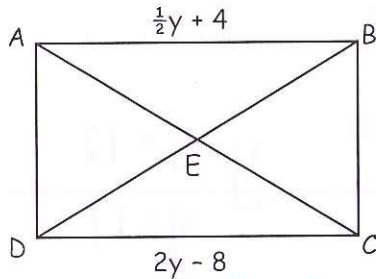
$$y = \underline{3}$$

$$z = \underline{4}$$

Solve for each missing measurement using what you know about parallelograms, rhombi, rectangles and squares.

7) ABCD is a rectangle [Given

$AC = 6x - 8$  and  $BE = x + 4$ ].

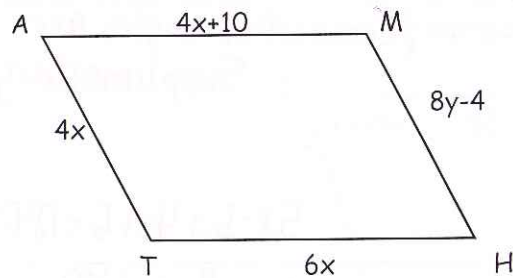


$\frac{1}{2}y + 4 = 2y - 8$   
 $y = 8$

$2(x + 4) = 6x - 8$   
 $x = 4$

$x = \underline{4}$     $AE = \underline{8}$     $AC = \underline{16}$     $CD = \underline{8}$   
 $y = \underline{8}$     $AB = \underline{8}$     $BD = \underline{16}$     $BE = \underline{8}$

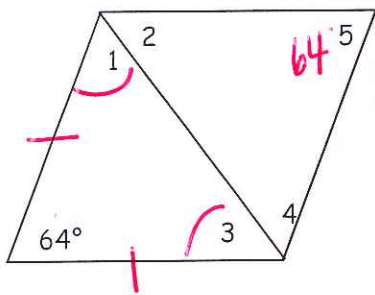
8) Parallelogram



$4x + 10 = 6x$   
 $x = 5$

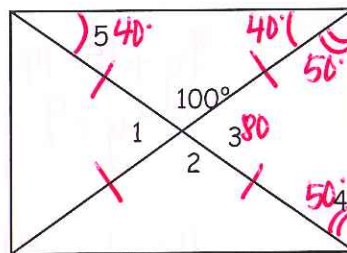
$x = \underline{5}$     $MH = \underline{20}$     $TA = \underline{20}$   
 $MA = \underline{30}$     $HT = \underline{30}$

9) Rhombus



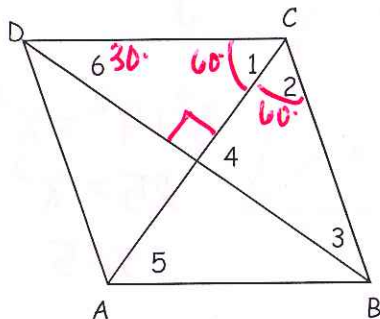
$m\angle 1 = \underline{58^\circ}$   
 $m\angle 2 = \underline{58^\circ}$   
 $m\angle 3 = \underline{58^\circ}$   
 $m\angle 4 = \underline{58^\circ}$   
 $m\angle 5 = \underline{64^\circ}$

10) Rectangle



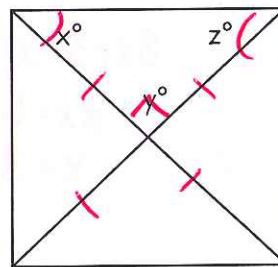
$m\angle 1 = \underline{80^\circ}$   
 $m\angle 2 = \underline{100^\circ}$   
 $m\angle 3 = \underline{80^\circ}$   
 $m\angle 4 = \underline{50^\circ}$   
 $m\angle 5 = \underline{40^\circ}$

11) Rhombus [Given  $m\angle BCD = 120^\circ$ ]



$m\angle 1 = \underline{60^\circ}$   
 $m\angle 2 = \underline{60^\circ}$   
 $m\angle 3 = \underline{30^\circ}$   
 $m\angle 4 = \underline{90^\circ}$   
 $m\angle 5 = \underline{60^\circ}$   
 $m\angle 6 = \underline{30^\circ}$

12) Square



$x = \underline{45^\circ}$   
 $y = \underline{90^\circ}$   
 $z = \underline{45^\circ}$