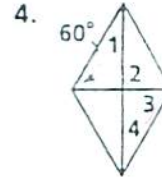
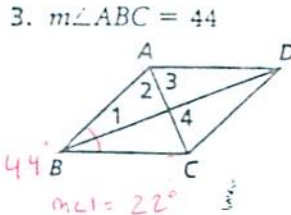
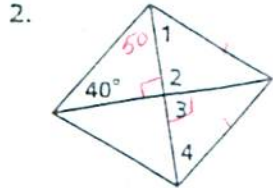
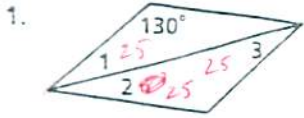


Practice 4-3

Example Exercises

Example 1

Find the measures of the numbered angles for each rhombus.



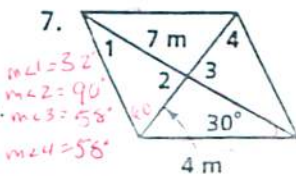
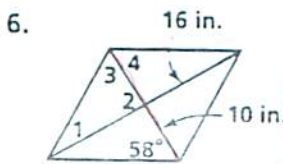
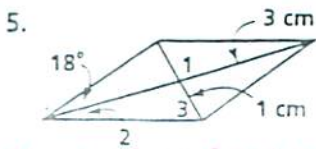
$m\angle 1 = 30^\circ$
 $m\angle 2 = 90^\circ$
 $m\angle 3 = 60^\circ$
 $m\angle 4 = 30^\circ$

$m\angle 1 = 50^\circ$
 $m\angle 2 = 90^\circ$
 $m\angle 3 = 90^\circ$
 $m\angle 4 = 50^\circ$

$m\angle 1 = 22^\circ$
 $m\angle 2 = 68^\circ$
 $m\angle 3 = 68^\circ$
 $m\angle 4 = 90^\circ$

Example 2

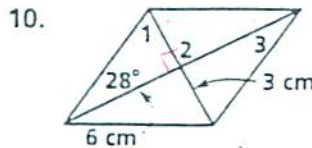
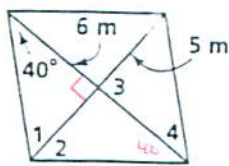
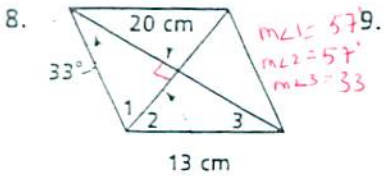
For each rhombus (a) find the measures of the numbered angles and then (b) find the area.



$m\angle 1 = 30^\circ$
 $m\angle 2 = 90^\circ$
 $m\angle 3 = 90^\circ$
 $m\angle 4 = 60^\circ$

$m\angle 1 = 90^\circ$, $m\angle 2 = 45^\circ$, $m\angle 3 = 72^\circ$

$m\angle 1 = 32^\circ$
 $m\angle 2 = 90^\circ$
 $m\angle 3 = 58^\circ$
 $m\angle 4 = 58^\circ$



$m\angle 1 = 82^\circ$
 $m\angle 2 = 90^\circ$
 $m\angle 3 = 28^\circ$

$m\angle 1 = 57^\circ$
 $m\angle 2 = 57^\circ$
 $m\angle 3 = 33^\circ$

$m\angle 1 = 50^\circ$
 $m\angle 2 = 50^\circ$
 $m\angle 3 = 90^\circ$
 $m\angle 4 = 40^\circ$

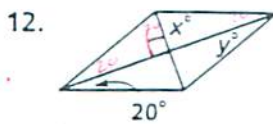
Example 3

For each parallelogram (a) choose the best name and then (b) find the value of the variable(s).

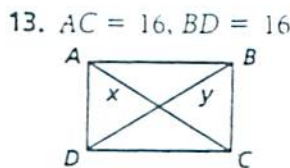


$x = 85^\circ$
 $y = 42.5^\circ$

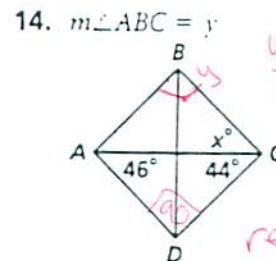
rectangle



rhombus
 $x = 70^\circ$
 $y = 20^\circ$

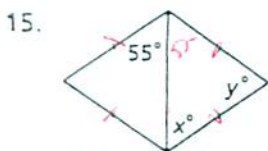


rectangle
 $x = 8$
 $y = 8$

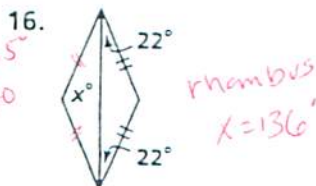


$y = 90^\circ$
 $x = 46^\circ$

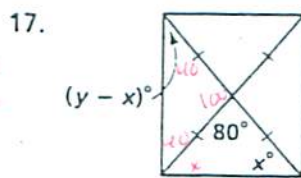
rectangle



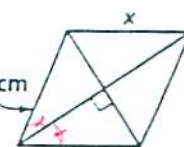
rhombus



$x = 55^\circ$
 $y = 70^\circ$
 rhombus
 $x = 136^\circ$



18. $x = 50$
 $y = 90$
 rectangle

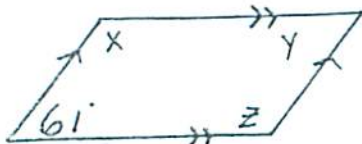


rhombus

$x = 13$

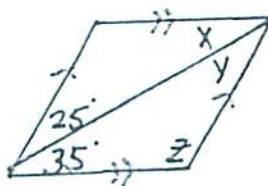
SHOW WORK

1



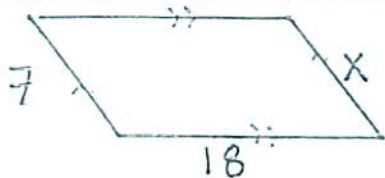
$x = 119^\circ$
 $y = 61^\circ$
 $z = 119^\circ$

2



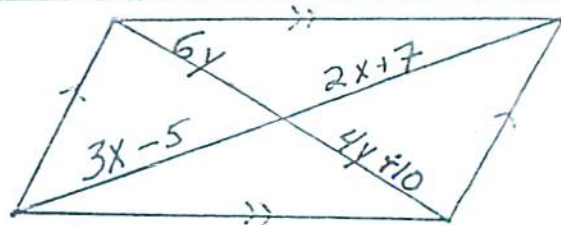
$x = 35^\circ$
 $y = 25^\circ$
 $z = 120^\circ$

3



$x = 7$

4



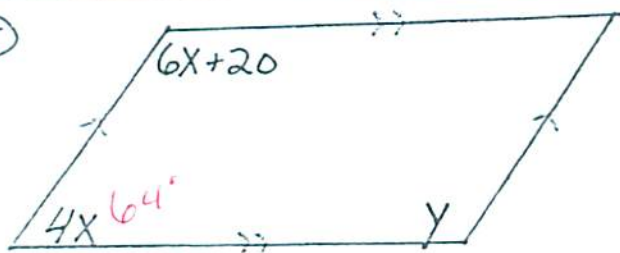
$3x-5 = 2x+7$
 $x = 12$

$6y = 4y+10$
 $2y = 10$
 $y = 5$

$x = 12$

$y = 5$

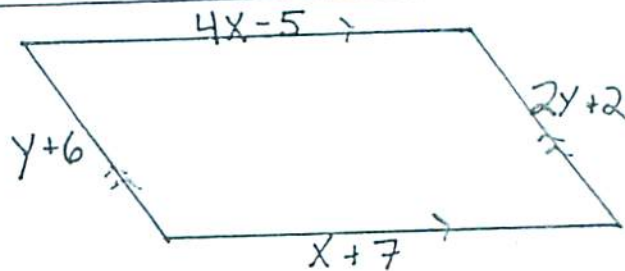
5



$6x+20+4x = 180$
 $10x+20 = 180$
 $10x = 160$
 $x = 16$

$y = 116^\circ$

6



$x = 4$

$y = 4$

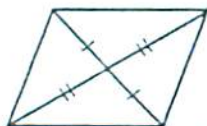
$4x-5 = x+7$
 $3x = 12$
 $x = 4$

$y+6 = 2y+2$
 $4 = y$

Based on the markings, decide if each figure is a parallelogram.

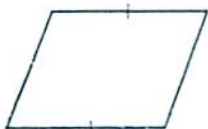
Justify your answer.

7



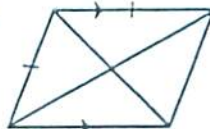
yes, diagonals bisect e.o.

8



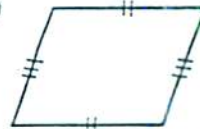
No

9



No

10



yes, opposite sides congruent