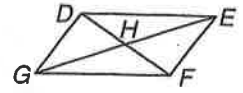


8-2

# Skills Practice

## Parallelograms

Complete each statement about  $\square DEFG$ . Justify your answer.



1.  $\overline{DG} \parallel$  EF opp. sides of  $\square$  are  $\parallel$

2.  $\overline{DE} \cong$  GF opp. sides of  $\square$  are  $\cong$

3.  $\overline{GH} \cong$  EH diagonal of  $\square$  bisect each other

4.  $\angle DEF \cong$   $\angle FGD$  opp  $\angle$ 's of  $\square$  are  $\cong$

5.  $\angle EFG$  is supplementary to  $\angle DEF$  or  $\angle FGD$  - Cons.  $\angle$ 's in

$\square$  are supplementary

6.  $\triangle DGE \cong$   $\triangle FEG$  diagonals of  $\square$  separate  $\square$  into 2  $\cong$   $\triangle$ 's

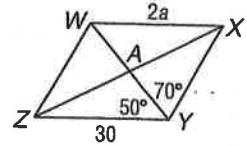
**ALGEBRA** Use  $\square WXYZ$  to find each measure or value.

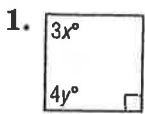
7.  $m\angle XYZ =$  60

8.  $m\angle WZY =$  60

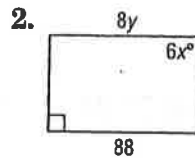
9.  $m\angle WXY =$  60

10.  $a =$  15

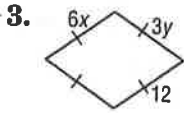




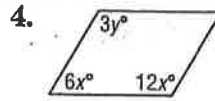
$x = 30$   
 $y = 22.5$



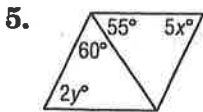
$x = 15$   
 $y = 11$



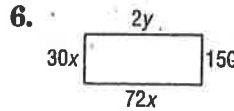
$x = 2$   
 $y = 4$



$x = 10$   
 $y = 40$



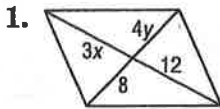
$x = 13$   
 $y = 32.5$



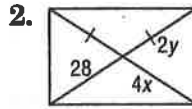
$x = 5$   
 $y = 180$

**Exercises**

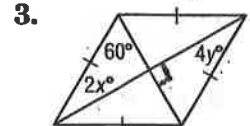
Find  $x$  and  $y$  in each parallelogram.



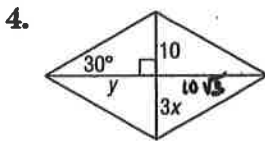
$x = 4$   $y = 2$



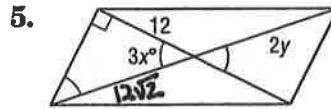
$x = 7$   $y = 14$



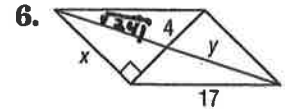
$x = 15$   $y = 7.5$



$x = 3\frac{1}{3}$   $y = 10\sqrt{3}$



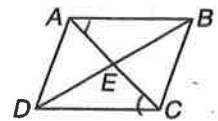
$x = 15$   $y = 6\sqrt{2}$



$x = 15$   
 $y = \sqrt{241}$

Complete each statement about  $\square ABCD$ .

Justify your answer.



7.  $\angle BAC \cong \angle ACD$

If lines are  $\parallel$ , alt int  $\angle$  are  $\cong$

8.  $\overline{DE} \cong \overline{BE}$

The diagonals of a parallelogram bisect each other

9.  $\triangle ADC \cong \triangle CBA$

The diagonals of a parallelogram divide the  $\square$  into 2  $\cong$   $\triangle$ 's

10.  $\overline{AD} \parallel \overline{CB}$

Opposite sides of a parallelogram are  $\parallel$ .