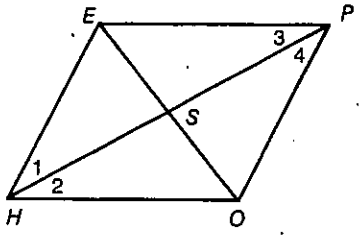
NAME Key DATE _____ SCORE _____

Practice 18
Parallelograms

Lessons 5-1 through 5-3

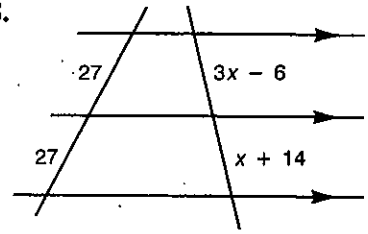
Exercises 1–7 refer to the diagram. *HOPE* is a parallelogram. Find the indicated lengths or angle measures.

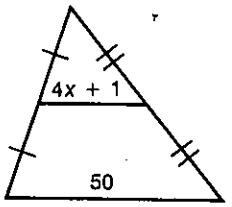


Exs. 1–7

1. If $HO = 14$, then $EP =$ 14.
2. If $HS = 5$, then $SP =$ 5.
3. If $m\angle HEP = 120$, then $m\angle HOP =$ 120.
4. If $m\angle 3 = 20$ and $m\angle 4 = 40$, then $m\angle 2 =$ 20.

In Exercises 5–9, find the value of x.

5. If $HE = 17 - 5x$ and $OP = 3x - 7$, then $x =$ 3.
6. If $ES = 2x + 6$ and $EO = 40$, then $x =$ 7.
7. If $m\angle EHO + m\angle EPO = 150$ and $m\angle HOP = x$, then $x =$ 105.
8. 

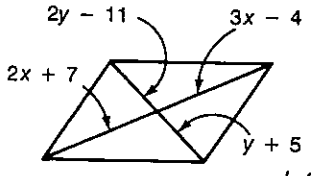
$x =$ 10
9. 

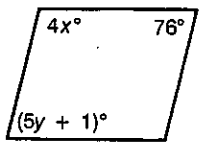
$x =$ 6

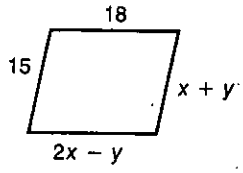
Classify each statement as *always*, *sometimes*, or *never* true.

10. The diagonals of a parallelogram bisect each other. A
11. A quadrilateral with two pairs of opposite sides congruent is a parallelogram. A
12. A quadrilateral with one pair of opposite sides congruent and one pair parallel is a parallelogram. S
13. A quadrilateral with diagonals that do not bisect each other is a parallelogram. N

What values must x and y have to make the quadrilateral a parallelogram?

14. 

$x =$ 11 $y =$ 16
15. 

$x =$ 26 $y =$ 15
16. 

$x =$ 11 $y =$ 4