#26

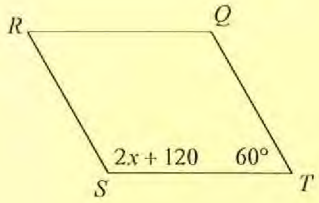
Name _____

Parallelogram Theorems Practice

Date _____

Solve for x. Each figure is a parallelogram.

1)



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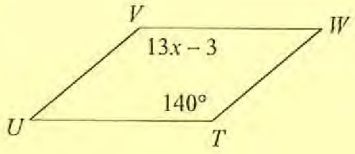

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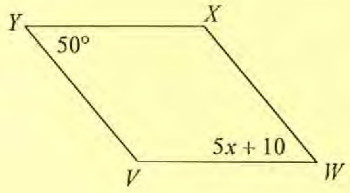

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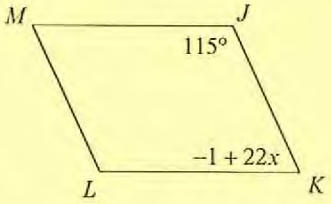

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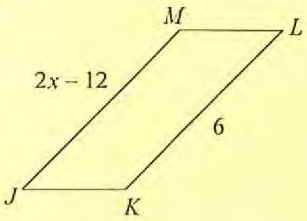

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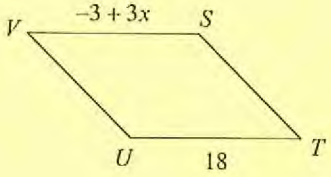

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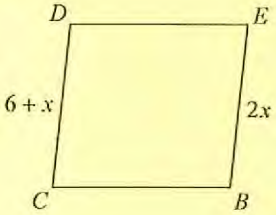

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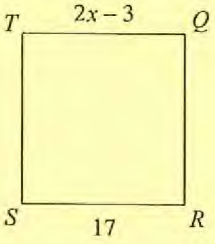
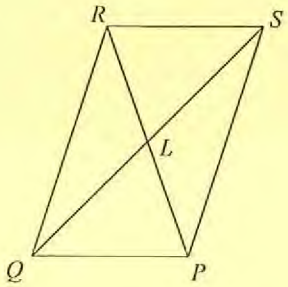
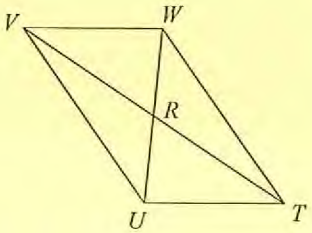


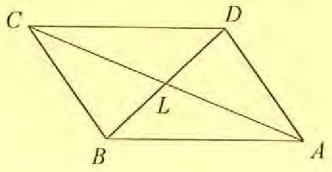
9) $QS = 42$
$LS = x + 9$



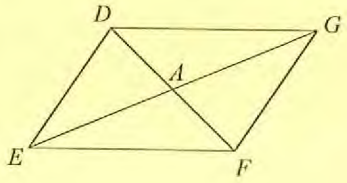
10) $RW = 23$
$UW = 3x + 13$



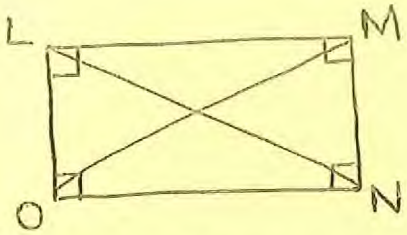
11) $BL = 12$
$LD = x$



12) $FA = 18$
$AD = 6x$



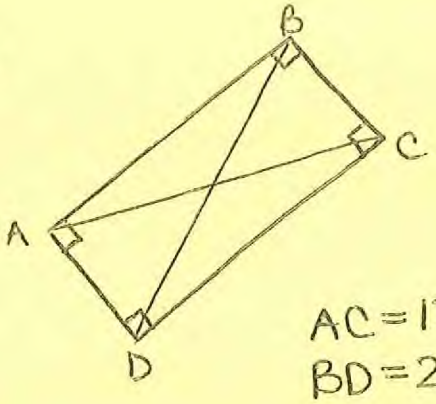
13)



LN = 15 m

OM = _____

14)

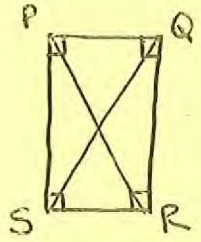


AC = 12

BD = 2X − 6

X = _____

15)

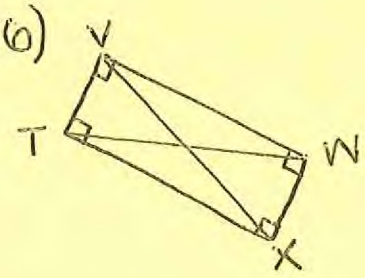


QS = 3X − 9

PR = X + 9

X = _____

16)



VX = 2X + 17

TW = X + 17

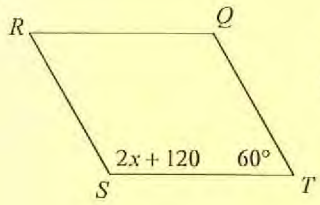
Name Key

Parallelogram Theorems Practice

Date _____

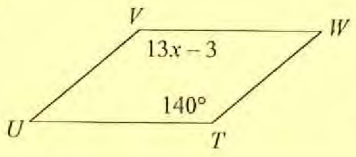
Solve for x. Each figure is a parallelogram.

1)



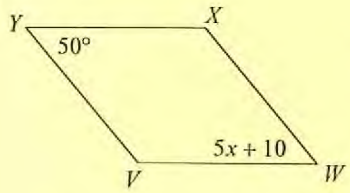
$\angle S + \angle T = 180°$
$2x + 120 + 60 = 180°$
$2x + 180 = 180°$
$2x = 0$
$x = 0$

2)



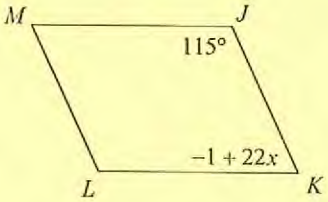
$\angle V \cong \angle T$
$13x - 3 = 140$
$13x = 143$
$x = 11$

3)



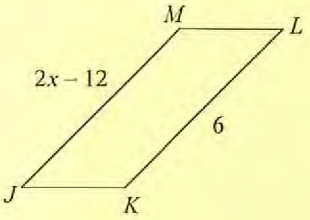
$\angle Y \cong \angle W$
$50 = 5x + 10$
$40 = 5x$
$8 = x$

4)



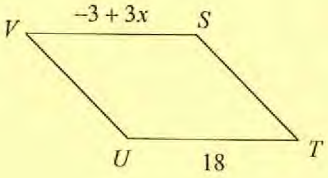
$\angle J + \angle K = 180°$
$115 + -1 + 22x = 180$
$114 + 22x = 180$
$22x = 66$
$x = 3$

5)



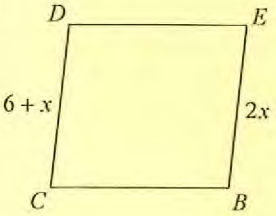
$MJ \cong LK$
$2x - 12 = 6$
$2x = 18$
$x = 9$

6)



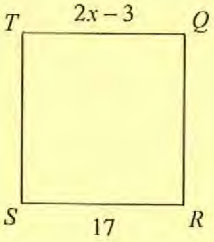
$VS \cong UT$
$-3 + 3x = 18$
$3x = 21$
$x = 7$

7)



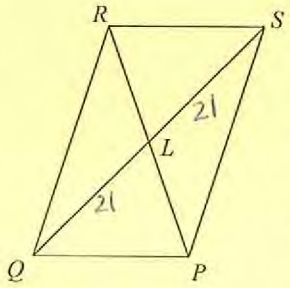
$DC \cong EB$
$6 + x = 2x$
$6 = x$

8)



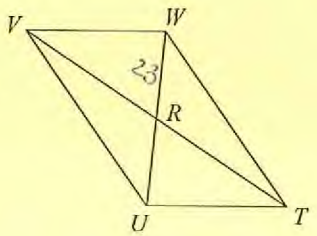
$TQ \cong SR$
$2x - 3 = 17$
$2x = 20$
$x = 10$

9) $QS = 42$
$LS = x + 9$
$LS = 21$



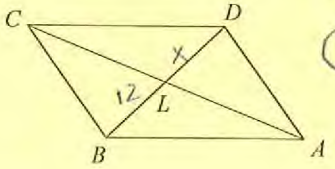
$x + 9 = 21$
$x = 12$

10) $RW = 23$
$UW = 3x + 13$
$UW = 23 + 23$
$= 46$



$3x + 13 = 46$
$3x = 33$
$x = 11$

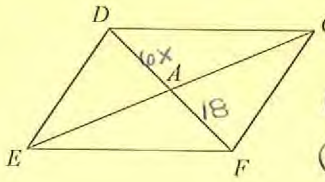
11) $BL = 12$
$LD = x$



BL ≅ LD

(X = 12)

12) $FA = 18$
$AD = 6x$

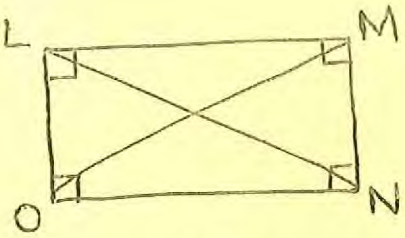


FA ≅ AD

6X = 18

(X = 3)

13)

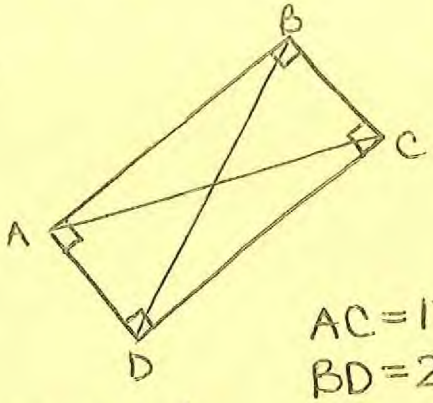


LN = 15 m

OM = 15 m

LN ≅ OM

14)



AC ≅ BD

AC = 12

BD = 2X − 6

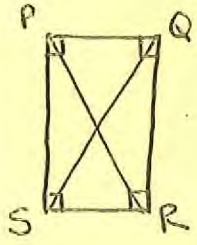
X = 9

12 = 2X − 6

18 = 2X

9 = X

15)



QS = 3X − 9

PR = X + 9

X = 9

QS ≅ PR

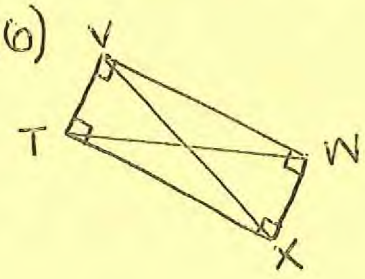
3X − 9 = X + 9

2X − 9 = 9

2X = 18

X = 9

16)



VX = 2X + 17

TW = X + 17

VX ≅ TW

2X + 17 = X + 17

X + 17 = 17

(X = 0)