Name:_____

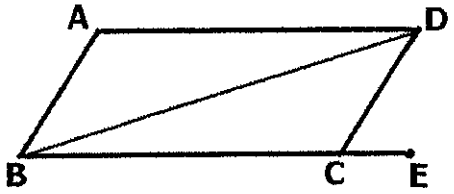
Geometry Worksheet
8-2 Parallelograms

***ABCD* is a parallelogram. Complete each statement.**

1) If $AB = 3x$. $CD = x + 10$, AB = _____

2) If $AD = 3x + 15$, $BC = 21$, AD = _____

3) If $AD = \frac{x}{2}$, $BC = 2x - 12$, BC = _____



4) If $m\angle BAD = 100$, $m\angle DCE$ = _____

5) If $m\angle ADC = 135$, $m\angle ABD = 80$, $m\angle DBC$ = _____

***ABCD* is a parallelogram. Complete each statement.**

6) If $AD = 20$, BC = _____

7) If $m\angle ADC = 115$, $m\angle ABC$ = _____

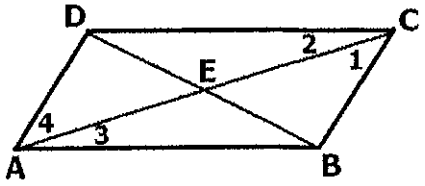
8) If $DB = 22$, DE = _____

9) If $AE = 18$, AC = _____

10) If $m\angle DAB = 75$, $m\angle ADC$ = _____

11) If $m\angle 2 = 30$, $m\angle 3$ = _____

12) If $BD = 10$ and $AE = 8$, AC = _____



13) If $m\angle ABC = 2(m\angle BCD)$, $m\angle ADC$ = _____

14) If $m\angle ADC = 130$, $m\angle 1 = 35$, $m\angle 2$ = _____

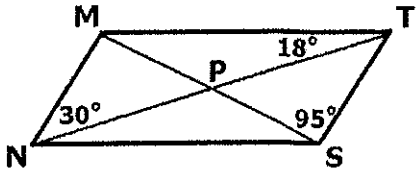
Find the measure of each angle in parallelogram *MNST*.

15) $m\angle TMN$ = _____

16) $m\angle TSN$ = _____

17) $m\angle MSN$ = _____

18) $m\angle SPN$ = _____

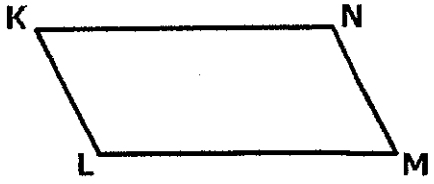


Complete each statement about parallelogram *KLMN*.

19) If $KN = 3x - 5$, $LM = x + 9$, KN = _____.

20) If $KL = \frac{x}{2}$, $MN = 2x - 9$, KL = _____.

21) If $KL = 8$, $MN = \frac{x^2}{2}$, x = _____.



22) If $m\angle K = 4x + 11$, $m\angle L = 6x - 1$, $m\angle K$ = _____.

23) If $m\angle K = 31°$, $m\angle M = 2x^2 - 1$, x = _____.

24) If $m\angle L = x - 40$, $m\angle N = \frac{3x}{4}$, $m\angle L$ = _____.

Exercises 25-32 refer to parallelogram *RSTW*. Complete each statement.

25) $\overline{RS} \parallel$ _____.

26) $\overline{TS} \cong$ _____.

27) $\overline{WX} \cong$ _____.

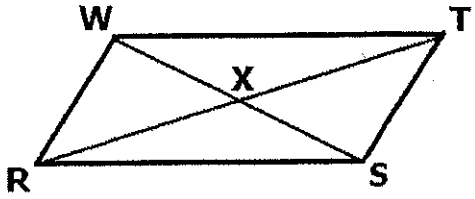
28) $\angle WRS \cong$ _____.

29) $\triangle RST \cong$ _____.

30) $WT =$ _____.

31) $TX =$ _____.

32) $m\angle RWT = m\angle$_____.



Exercises 33-46 refer to parallelogram *CDEF*. Using the given information, find the indicated measure.

33) $CE = 12$; $CX =$ _____

34) $FX = 8$; $FD =$ _____

35) $m\angle CDE = 72°$; $m\angle EFC =$ _____

36) $m\angle 1 + m\angle 2 = 106°$; $m\angle FCD =$ _____

37) $m\angle 3 = 88°$; $m\angle 2 =$ _____

38) $m\angle 4 = 41°$; $m\angle 1 =$ _____

39) $m\angle CFE = 10x + 1$; $m\angle EDC = 12x - 9$; $x =$ _____

40) $m\angle FCD = 7x - 3$; $m\angle DEF = 5x + 31$; $x =$ _____

41) $m\angle 3 = 4x + 4$; $m\angle 4 = 6x$; $m\angle FED = 104°$; $x =$ _____

42) $m\angle 1 = 7x + 8$; $m\angle 2 = 10x + 1$, $m\angle FCD = 111°$; $x =$ _____

43) $FX = 7y - 6$; $FD = 16$; $y =$ _____

44) $XE = 2y + 2$; $CE = 12$; $y =$ _____

45) $CE = 5y + 3$; $XE = 7$; $y =$ _____

46) $FD = 6y - 5$; $DX = 11$; $y =$ _____