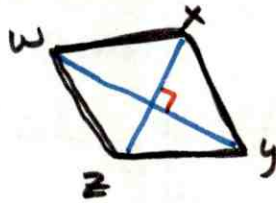


8.4

1) Equilateral Rectangle is a square.

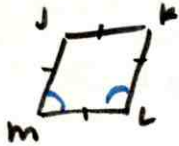
2) Enough info to prove that it is a rhombus?

No, you do not know if it's a // - gram.



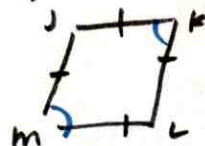
For any rhombus JKLM, always/sometimes.

3) $\angle L \cong \angle m$



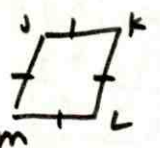
sometimes, when it's a square

4) $\angle K \cong \angle m$



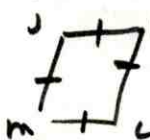
always, // - gram opp. \angle s \cong

5) $\overline{JK} \cong \overline{KL}$



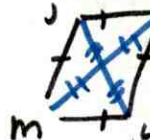
always, 4 \cong sides

6) $\overline{JM} \cong \overline{KL}$



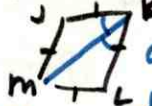
always, 4 \cong sides

7) $\overline{JL} \cong \overline{KM}$



sometimes, when it's a square

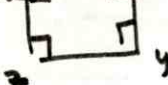
8) $\angle JKM \cong \angle LKM$



always, diagonals bisect opp. \angle s

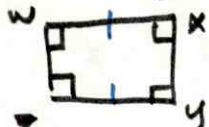
For any rectangle WXYZ.

9) $\angle W \cong \angle X$



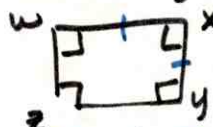
Always, opp. \angle s \cong

10) $\overline{WX} \cong \overline{YZ}$



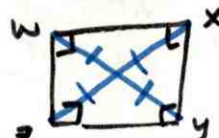
Always, opp. sides \cong

11) $\overline{WX} \cong \overline{XY}$



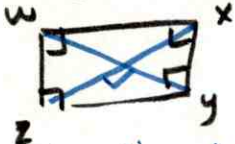
sometimes, square

12) $\overline{WY} \cong \overline{XZ}$



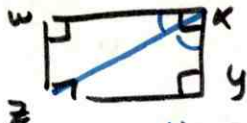
Always, diagonals \cong

13) $\overline{WY} \perp \overline{XZ}$

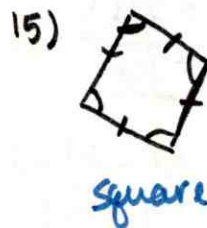


sometimes, square

14) $\angle WYZ \cong \angle YXZ$



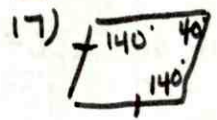
sometimes, square



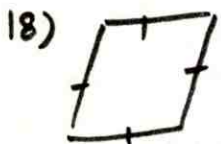
square



Rectangle



Rhombus



- opp. sides - parallel, congruent
- opp. angles - congruent
- consecutive \angle s - supplementary

- diagonals - bisect each other, perpendicular, bisect opp. angles

19) Equiangular
Rectangle
Square

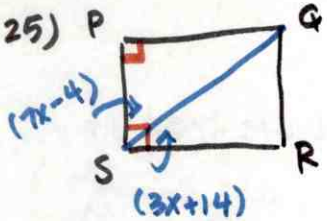
20) equiangular + equilateral
square

21) diagonals \perp
Rhombus
square

22) opp. sides \cong
// - gram
rectangle
rhombus
square

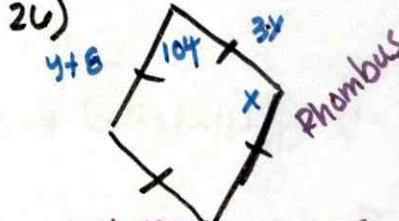
23) diagonals bisect each other
// - gram
rectangle
rhombus
square

24) diagonals bisect
opp. \angle s
Rhombus
square



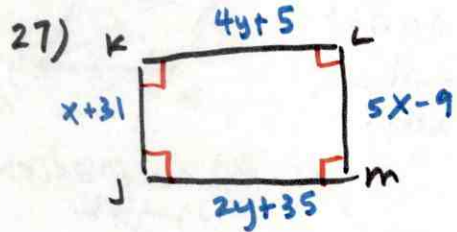
$7x - 4 = 3x + 14$
 $4x = 18$
 $x = 4.5$

$7x - 4 + 3x + 14 = 90$
 $10x + 10 = 90$
 $10x = 80$
 $x = 8$



$x + 10y = 180$
 $x = 76$

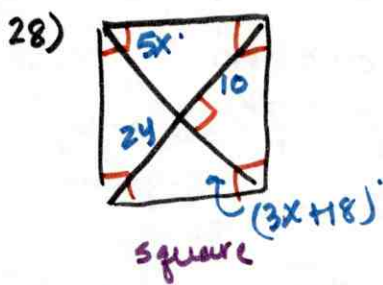
$3y = y + 8$
 $2y = 8$
 $y = 4$



Rectangle

$5x - 9 = x + 31$
 $4x = 40$
 $x = 10$

$4y + 5 = 2y + 35$
 $2y = 30$
 $y = 15$

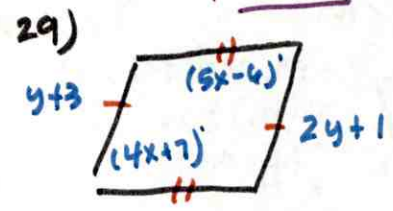


square

$5x = 3x + 18$
 $2x = 18$
 $x = 9$

$2y = 10$
 $y = 5$

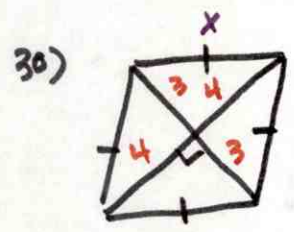
or $5x = 45$



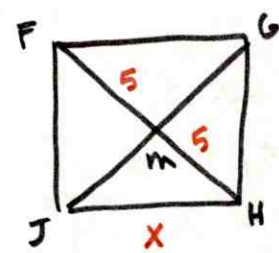
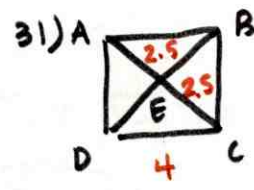
||-gram

$5x - 6 = 4x + 7$
 $x = 13$

$2y + 1 = y + 3$
 $y + 1 = 3$
 $y = 2$



$d_1 = 6$ $d_2 = 8$
 $x^2 = 3^2 + 4^2$
 $x = 5$ $P = 4(5)$
 $P = 20$



$\frac{5}{4} = \frac{10}{x}$
 $5x = 40$
 $x = 8$

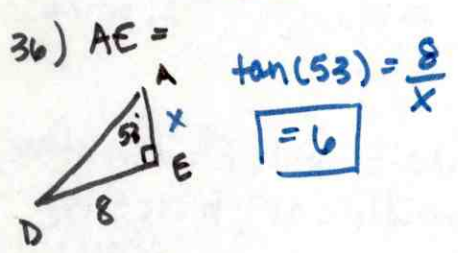
Rhombus

32) $m\angle DAC = 53^\circ$

33) $m\angle AED = 90^\circ$

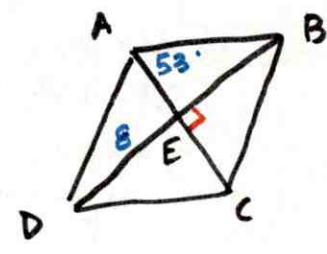
34) $m\angle ADC = 180 - 2(53)$
 $= 74^\circ$

35) $DB = 2(8)$
 $= 16$



$\tan(53) = \frac{8}{x}$
 $x = 6$

37) $AC = 2(6)$
 $= 12$



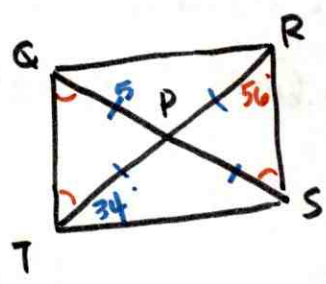
Rectangle

38) $m\angle SRT = 90 - 34$
 $= 54$

39) $m\angle QPR = 180 - 2(34)$
 $= 112$

40) $QP = 15$

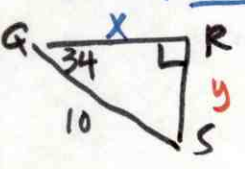
41) $RP = 15$



QS = 10

42) $QR = 8.3$

43) $RS = 5.6$
 $\sin(34) = \frac{y}{10}$



$\cos(34) = \frac{x}{10}$

Square

44) $m\angle MKN = 90^\circ$

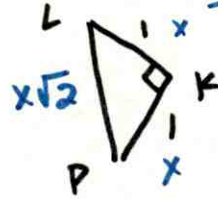
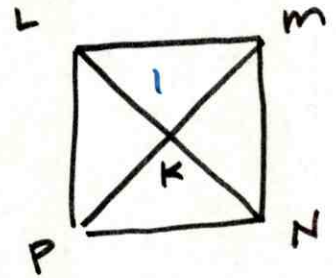
45) $m\angle LMK = 45^\circ$

46) $m\angle LPK = 45^\circ$

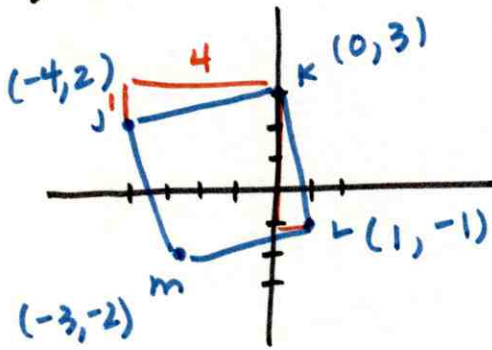
47) $KN = 1$

48) $mp = 2$

49) $LP = \sqrt{2}$



50)



slope $\overline{JK} = \frac{1}{4}$ slope $\overline{KL} = -4$

slope $\overline{LM} = \frac{1}{4}$ slope $\overline{JM} = -4$

Square

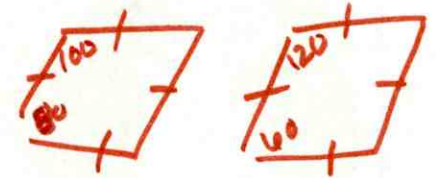
$1^2 + 4^2 = c^2$

$1 + 16 = 17$

$c = \sqrt{17}$

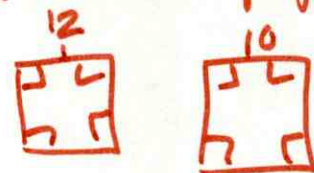
52) Are all rhombuses similar?

No, b/c all the angles must be \cong corresponding

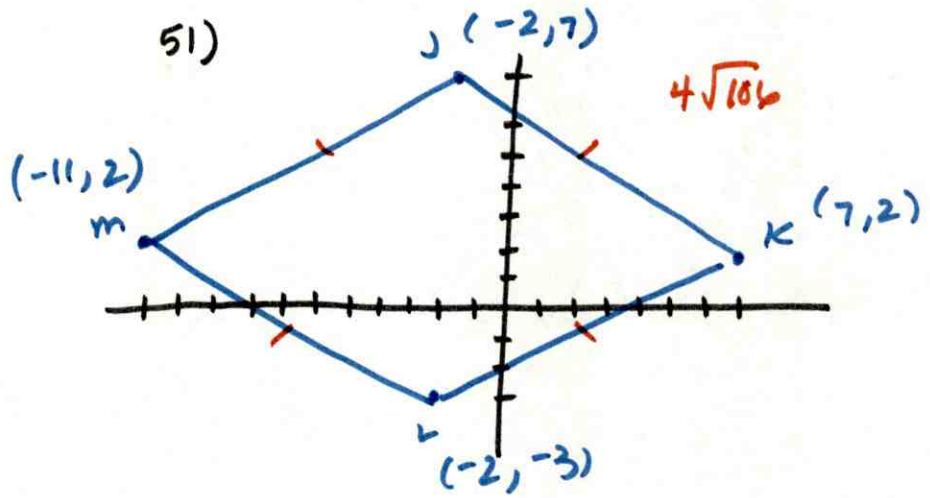


Are all squares similar?

Yes, b/c all corresponding \angle s and sides \cong or proportional



51)



Rhombus