Geometry Ch 6 Review (6.1 → 6.5)

Ch 6 * THIS IS AN ANSWER KEY. YOU MUST SHOW WORK TO GET CREDIT

1. $m\overline{NM} = \frac{1}{2}$ $NM = \sqrt{20}$
$m\overline{MK} = -2$ $MK = \sqrt{20}$
$m\overline{LK} = \frac{1}{2}$ $LK = \sqrt{20}$
$m\overline{NL} = -2$ $NL = \sqrt{20}$

KLNM is a square because opposite sides are ∥, adjacent sides are ⊥ and all 4 sides have the same length, $\sqrt{20}$.

2. $m\overline{PQ} = 1/3$ $PQ = \sqrt{10}$
$m\overline{QR} = -3/8$ $QR = \sqrt{73}$
$m\overline{SR} = 1/3$ $SR = \sqrt{10}$
$m\overline{PS} = -3/8$ $PS = \sqrt{73}$

PQRS is a parallelogram because both pairs of opposite sides are ∥. (i.e. they have same slope)

3. $x = 8$
$DC = 7$
$AB = 14$
$AD = BC = 9$

4. (4, 5)
$KL = KN = 7$
$LM = NM = 14$

5. $m\angle 1 = 37°$
$m\angle 2 = 26°$
$m\angle 3 = 26°$

6. $m\angle 1 = 38°$
$m\angle 2 = 43°$
$m\angle 3 = 99°$

7. $m\angle 1 = 101°$
$m\angle 2 = 79°$
$m\angle 3 = 101°$

8. Yes - In a quad, if both pairs of opposite ∠'s are ≅ then the quad is a □.

9. Yes - In a quad if both pairs of opposite sides are ≅, then the quad is a □.

10. NO - those ∠'s being ≅ doesn't mean that opposite sides or ∠'s are ≅.

11. Yes - In a quad, if the diagonals bisect each other, then the quad is a □

(2nd)
12. (29, 28)

12. (4, 5)

13. $m\angle 1 = 124°$
$m\angle 2 = 28°$
$m\angle 3 = 62°$

14. $m\angle 1 = 60°$
$m\angle 2 = 90°$
$m\angle 3 = 30°$

15. $m\angle 1 = 90°$
a) $m\angle 2 = 25°$

~~2nd~~ 15b)
15. $AC = 26''$