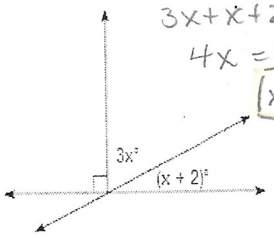
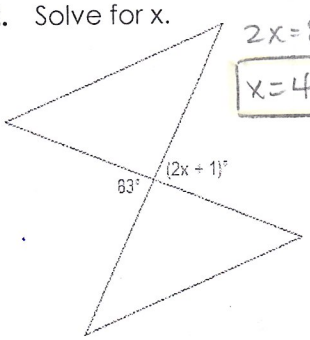
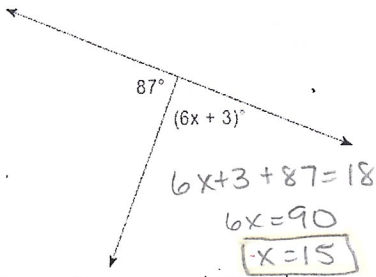
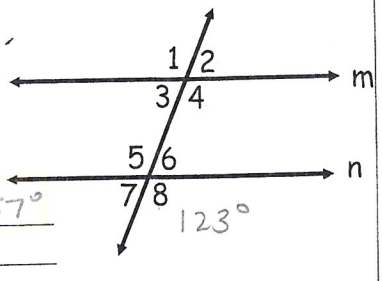
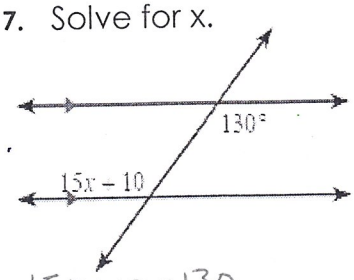
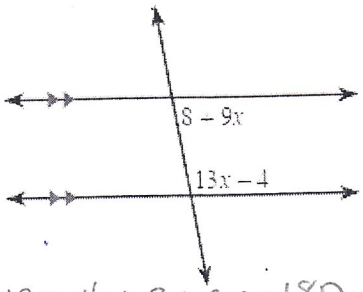
GSE Geometry | Unit 1 – Angles and Parallelograms | Test Review Grid

Name _____ Date _____

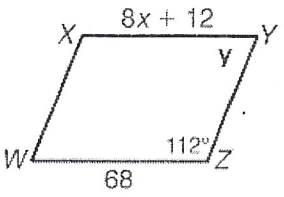
Use the following to review for you test. Work the Practice Problems on a separate sheet of paper.

What you need to know & be able to do	Things to remember	Problem	Problem
Solving for Missing Angles	Linear Pair ___ + ___ = 180° Supplementary Angles ___ + ___ = 180° Complementary Angles ___ + ___ = 90° Vertical Angles ___ = ___ Angle Addition Postulate	**1.** Solve for x.  $3x+x+2=90$ $4x=88$ $x=22$ **2.** Solve for x.  $2x+1=83$ $2x=82$ $x=41$	**3.**  $6x+3+87=180$ $6x=90$ $x=15$ **4.** One of two supplementary angles is 98° greater than its supplement. Find the measure of both angles. $x+x+98=180$ $2x=82$ $x=41$ $\angle 1 = 41°$ $\angle 2 = 139°$ **5.** $\angle 1$ and $\angle 2$ are complementary angles. Solve for x and the measure of both angles. $\angle 1 = 7x+20 = 41°$ $\angle 2 = 17x-2 = 49°$ $7x+20+17x-2=90$ $24x+18=90$ $24x=72$ $x=3$
Parallel Lines	**Supplementary:** ___ + ___ = 180° • Linear Pairs • Consecutive Interior Angles **Congruent:** ___ = ___ • Vertical Angles • Corresponding Angles • Alternate Interior Angles • Alternate Exterior Angles	**6.** Given $m \parallel n$, $m\angle 8 = 123°$, find the measures of all the numbered angles in the figure.  $m\angle 1 = 123°$ (alt. ext.), $m\angle 2 = 57°$ (ss ext.), $m\angle 3 = 57°$ $m\angle 4 = 123°$ (corr. ∠'s), $m\angle 5 = 123°$ (vert. ∠'s), $m\angle 6 = 57°$ (supp.), $m\angle 7 = 57°$ (supp.)	**7.** Solve for x.  $15x+10=130$ $15x=120$ $x=8$ **8.**  $13x-4+8+9x=180$ $22x+4=180$ $22x=176$ $x=8$

Properties of Parallelograms

- Opposites angles are congruent
- Consecutive angles are supplementary
- Opposite sides are equal
- Diagonals bisect each other

9. Find x and y.

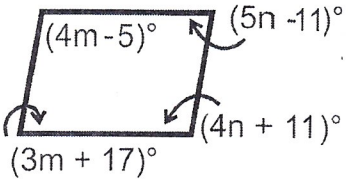


$8x+12=68$ $y+112=180$

$8x=80$ $y=68°$

$x=10$

10. Find m and n.



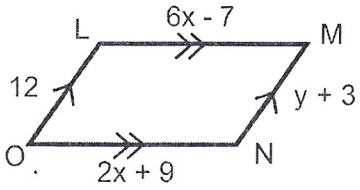
$4m-5+3m+17=180$

$7m+12=180$ $5n-11+4n+11=180$

$7m=168$ $9n=180$

$m=24$ $n=20$

11. Find x and y.

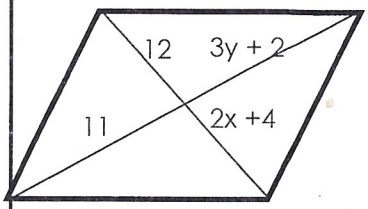


$y+3=12$ $6x-7=2x+9$

$y=9$ $4x=16$

$x=4$

12. Find x and y.



$3y+2=11$ $2x+4=12$

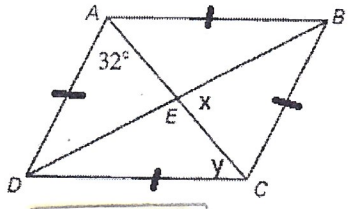
$3y=9$ $2x=8$

$y=3$ $x=4$

Special Parallelograms

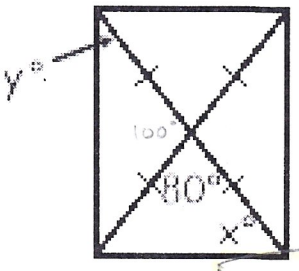
- A rectangle is a parallelogram with 4 right angles,
- A rhombus is a parallelogram with 4 congruent sides.
- A square is a rectangle and rhombus

13. Find x and y.



$x=90°$

14. Find x and y.



$y=40°$ $x=50°$

Sometimes, Always, Never

15. A square is a rectangle. always

16. A quadrilateral is a parallelogram. Sometimes

17. A kite is a parallelogram. never

18. A rhombus is a rectangle. never