Math 3
Unit 6 Day 5 CW
2. Answer the questions below about this rectangle. Then complete the theorems.

Name:
Date:

a) Since RECT is a rectangle, what angles are congruent to $\angle T R E$ ?
b) What is the interior angle sum of any quadrilateral?
c) What is the interior angle measure of a rectangle?
d) Name all pairs of perpendicular segments:
e) Since RT and EC are both perpendicular to TC, what does the Two $\perp$ 's Theorem say?
f) Name four pairs of supplementary angles:
g) How does the Converse of the Same-Side Interior Angle Theorem apply to this diagram?
h) Give two different reasons (theorems) why RE // TC:
i) RECT is also a:
j) Why is RE = TC?
k) $\mathrm{RT}=$ ?
l) Name three triangles congruent to $\triangle R T C$ :
m) Give two reasons those four triangles are congruent.
n) Since RC and ET are corresponding parts of congruent triangles, they are:
o) Name two distinct pairs of alternate interior angles:
p) What kind of triangles are $\triangle C A T$ and $\triangle R A E$ ?
q) Why are $\triangle T A R$ and $\triangle E A C$ isosceles?
r) What do RC and ET do to each other?
s) What kind of point is $A$ ?
t) What properties does a rectangle share with an isosceles trapezoid?
u) How does a rectangle differ from an isosceles trapezoid?
v) Is a rectangle also an isosceles trapezoid? Why or why not?
w) Is a rectangle a trapezoid? Why or why not?
x) THEOREM: The diagonals of a rectangle are:
y) THEOREM: All rectangles are:
z) THEOREM: An equiangular parallelogram is a:

## Math 3 <br> Unit 6 Day 5 HW

## Name:

Date:
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$\qquad$
Directions: For questions \#1-2, find the measure of each missing angle.
1.

2.


Directions: For questions \#3-4, find x and the length of EF.
3.

4.


Directions: For questions \#5-6, find the measures of the numbered angles in each kite.
5.

6.


Challenge Question: Solve for the unknown angle measures in the kite shown below.


