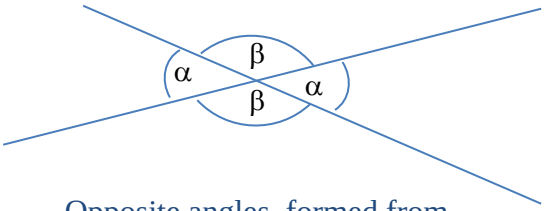
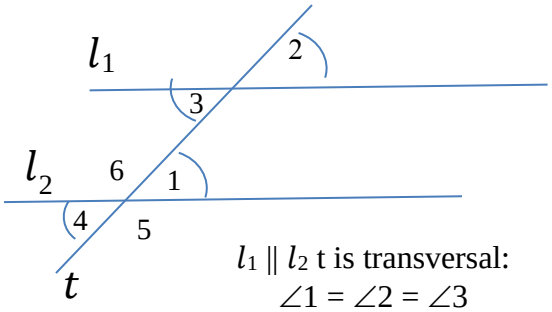
# MATH 5e: Class Work 23

Topics: A line with a transverse

## Two lines with a transverse




Opposite angles, formed from crossing straight lines, are equal.




$l_1 \parallel l_2$ t is transversal:
$\angle 1 = \angle 2 = \angle 3$

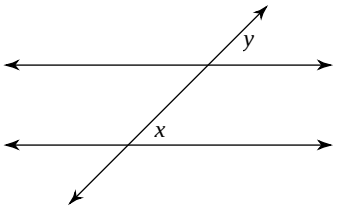
$\angle \alpha = \angle \alpha$ – opposite
$\angle \alpha + \angle \beta = 180^0$ – on a straight line,
Or complementary angles

$\angle 1 = \angle 3$ = alternate interior angles
$\angle 1 = \angle 2$ = corresponding angles
$\angle 4 = \angle 2$ = alternate exterior angles
$\angle 5 = \angle 2$ = same side (consecutive) exterior angles
$\angle 6 = \angle 3$ = same side (consecutive) exterior angles

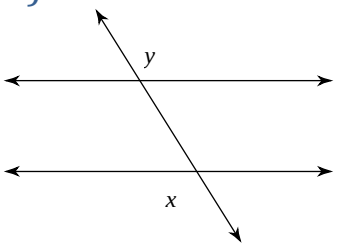
## Review

Identify each pair of angles as corresponding, alternate interior, alternate exterior, or same side (consecutive) interior.

### 1)




### 2)



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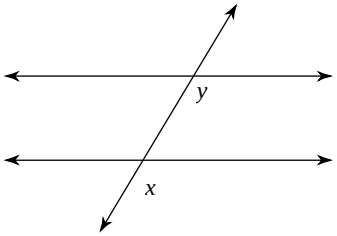
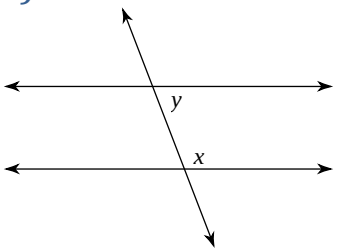
3)




4)

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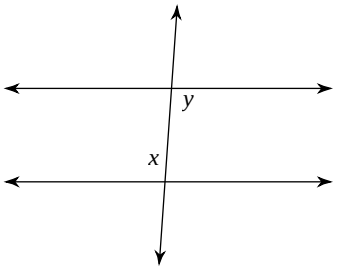


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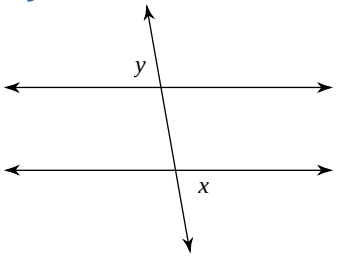
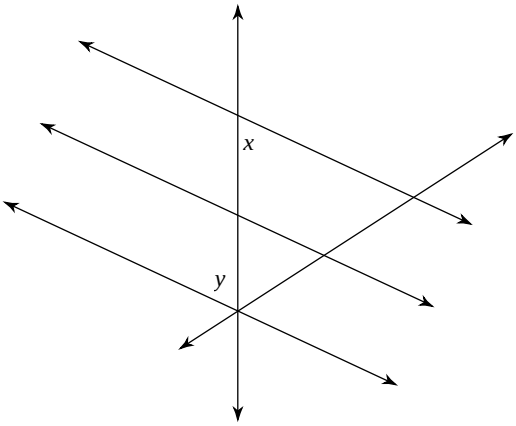
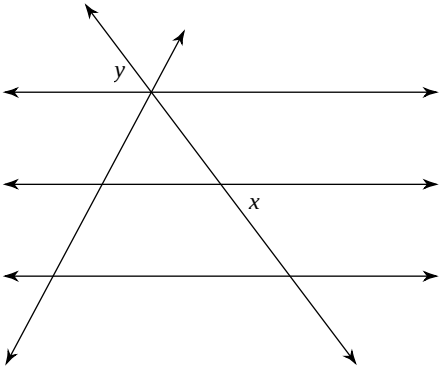



7)




8)



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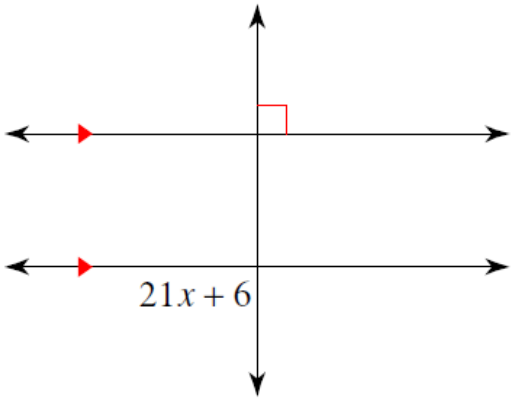
## Problems

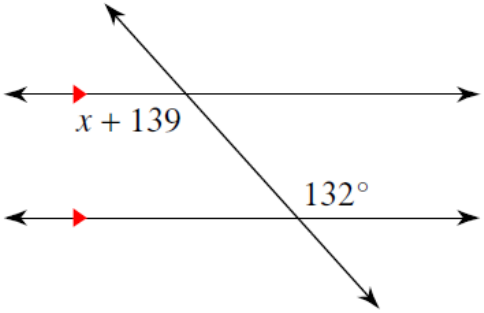
1. Play a garme – what are the measures of the angles

2. Solve for x

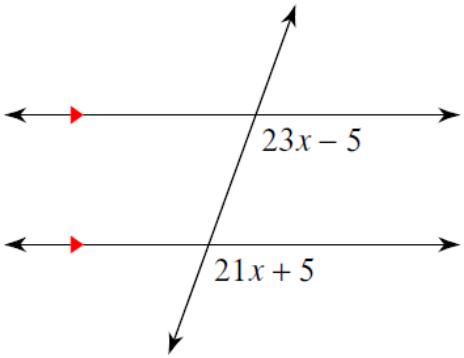
a)




b)




c)



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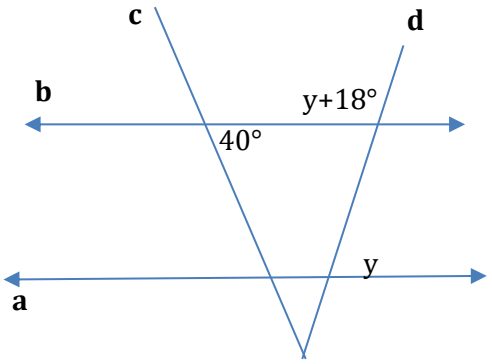
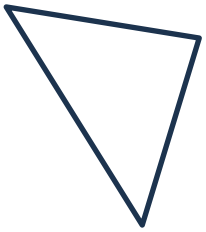
3. Write the Given and find $\measuredangle y$



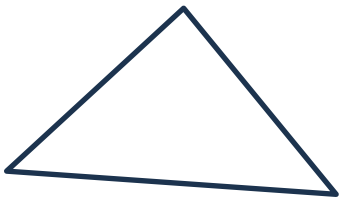

4. Describe what is wrong with these triangles (values to be added by the teacher in class)

a)



b)

c)



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4. Find the areas of the triangles ( values to be added by the teacher in class)

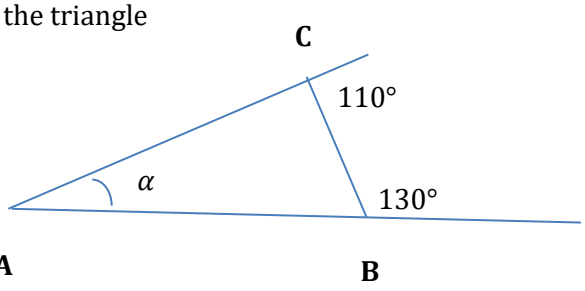
a)

b)

c)

5. Write the Given and find the value of angle $\measuredangle CAB$ in the triangle

Given:




Find: $\measuredangle \alpha$ = ?