# MATH 5e: Class Work 22

Topics: A line with a transverse

## Review / Introduction

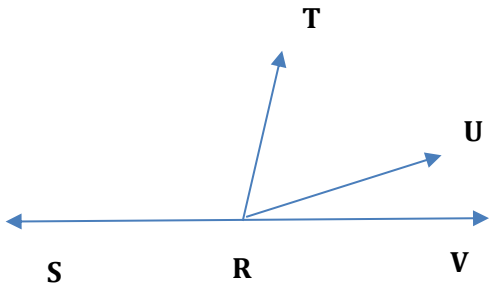
1. Line ray segment

2. Angles: right angle, straight angle

3. Adjacent angles: supplementary and complementary

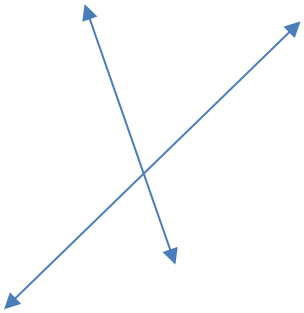
### Example 1:

Name the angles
Write the given and calculate all angels



# MATH 5e: Class Work 22

4. Vertical angles



5. Parallel lines, parallel lines with a transverse

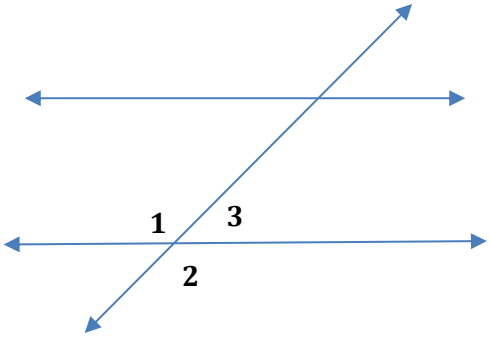
a) interior and exterior angles

b) corresponding angles

b) alternative angles

Example 2:

a)Find the corresponding angle of ∡1
b) the opposite angle of ∡2
c) draw the alternative interior angle of ∡1
d) draw the alternative exterior angle of ∡2(1)
e) Find all angles equal to angle ∡3

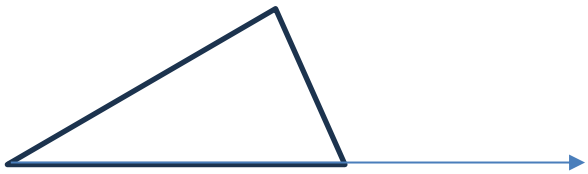


Example 3: Which of the following relations are correct

a) $\measuredangle x = \measuredangle a$
b) $\measuredangle x = \measuredangle b$
c) $\measuredangle y = \measuredangle b$
d) $\measuredangle x + \measuredangle y = 180°$
e) $\measuredangle x + \measuredangle y = \measuredangle a + \measuredangle b$

**Theorem (interior angles):**
If two lines are intersected with a transverse, then the alternative interior angles are equal.
If the interior angles of two lines intersected with a transverse are equal, then the lines are parallel.

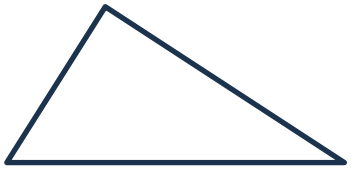
6. Triangles, angles in a triangle



a) interior angle rules

b) exterior angles

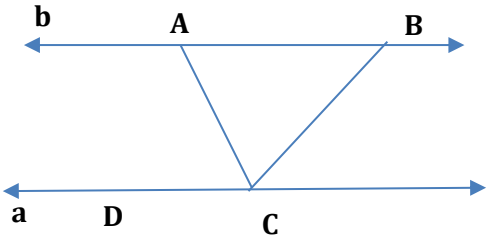
7. Area of a triangle



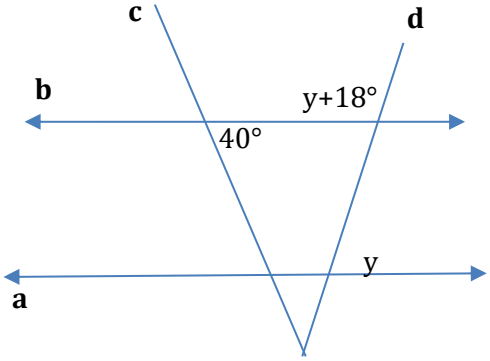
# MATH 5e: Class Work 22

## Problems

1. Given: $a \parallel b$
$\measuredangle ABC = 34°$
$\measuredangle BAC = \measuredangle ACB$
$\measuredangle ACD =?$

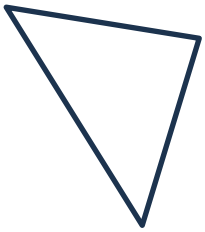



2. Write the Given and find $\measuredangle y$

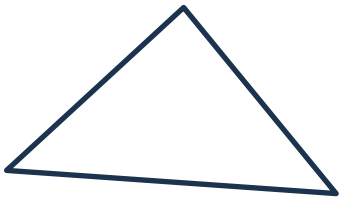


# MATH 5e: Class Work 22

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

a) 

b)

c) 

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

a) 

b) 

c)

# MATH 5e: Class Work 22

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

Given: