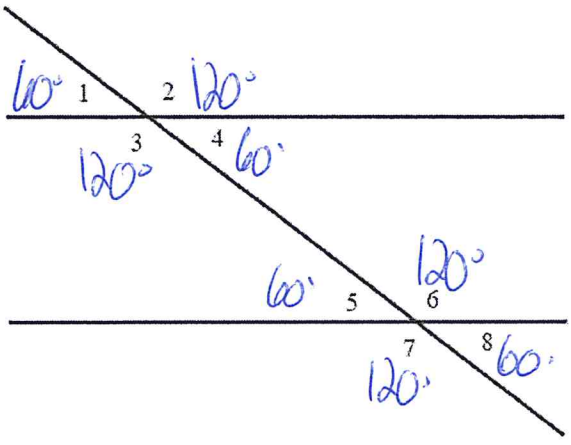Name *Schlansky*

Mr. Schlansky
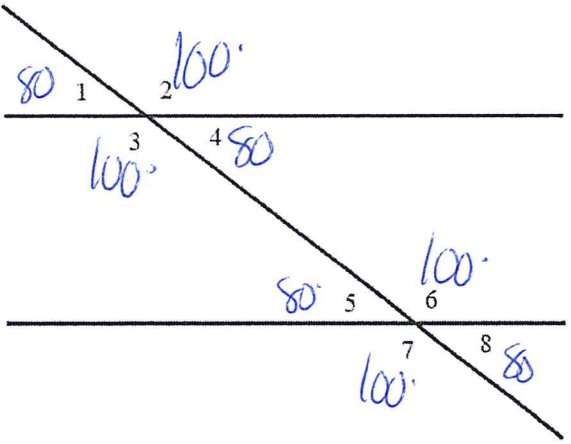
Date _____

Geometry

Parallel Lines Cut By a Transversal
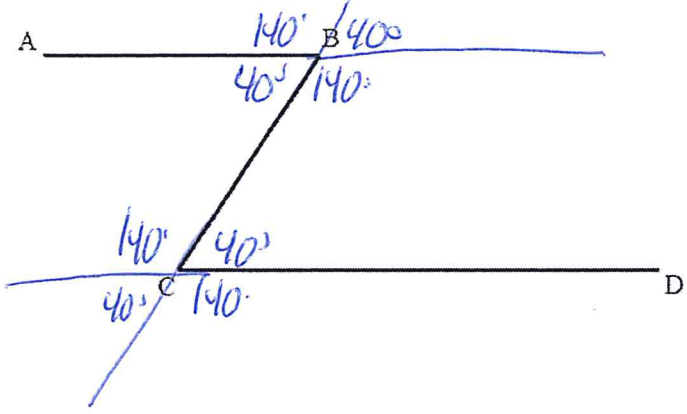
1. In the diagram below, two parallel lines are cut by a transversal. If $m\angle 1 = 60$, fill in the rest of the angles.
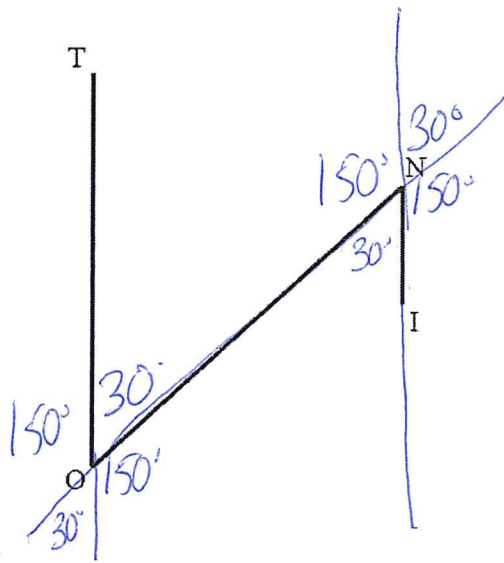
$60°$ 1 | 2 $120°$
3 $120°$ | 4 $60°$
$60°$ 5 | 6 $120°$
7 $120°$ | 8 $60°$

2. In the diagram below, two parallel lines are cut by a transversal. If $m\angle 2 = 100$, fill in the rest of the angles.

80 1 | 2 $100°$
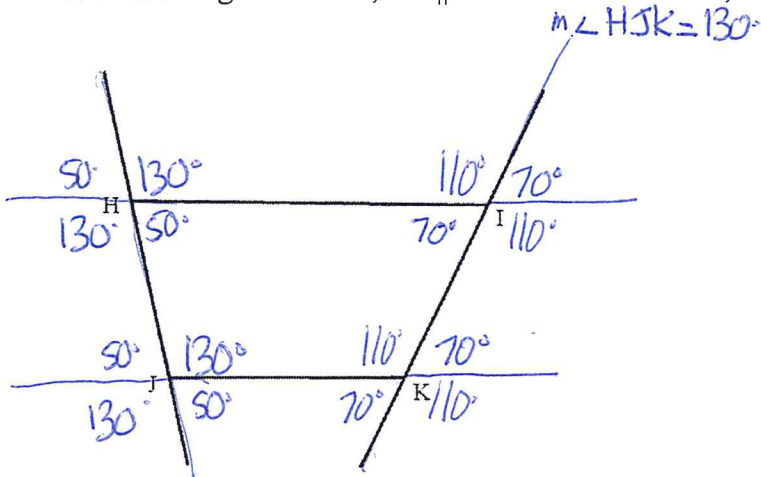3 $100°$ | 4 80
$80°$ 5 | 6 $100°$
7 $100°$ | 8 80

3. In the diagram below, $\overline{AB} \parallel \overline{CD}$. If $m\angle ABC = 40$, create and find 8 angles.

A _____ $140°$ B $40°$
$40°$ $140°$
$140°$ $40°$
$40°$ C $140°$ D

4. In the diagram below, $\overline{TO} \parallel \overline{NI}$. If $m\angle TON = 30$, create and find 8 angles.

T

30°
150° N 50°
30°

I

150° 30°
150°
O 150°
30°

5. In the diagram below, $\overline{HI} \parallel \overline{JK}$. If $m\angle HIK = 70$, create and find 16 angles.
$m\angle HJK = 130°$

50° 130°
H
130° 50°

110° 70°
I
70° 110°

50° 130°
J
130° 50°

110° 70°
70° K 110°

6. Trapezoid TACO has $\overline{TO} \parallel \overline{AC}$. If $m\angle TOC = 120$, create and find 16 angles.
$m\angle TAC = 40$

40
140 A
140° 140
40

140° 40
T
40 140°

60
120
O
120 60

60 120
120 C 60°