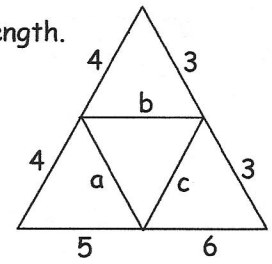
Geometry
Worksheet – Connecting Midpoints

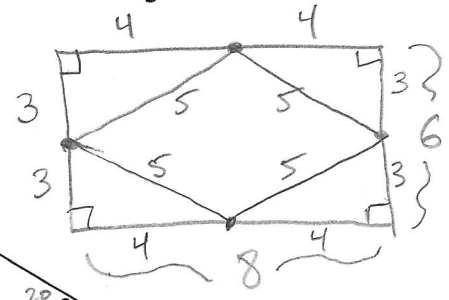
Name KEY
Date _____ Period _____

1. Only one of the lengths a, b, or c can be found. Name the segment and find its length.

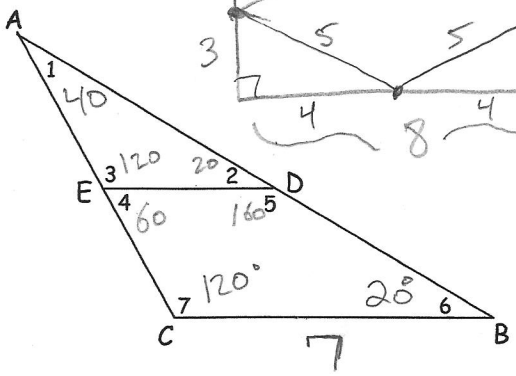
b (midsegment)



2. The figure formed by connecting successive midpoints of a rectangle with sides of length 6 and 8 is a Rhombus with sides of length 5.

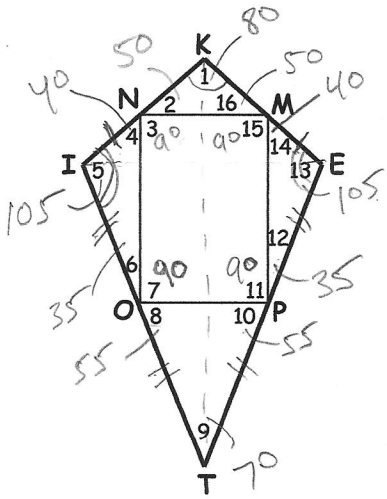


3. Given: D is the midpoint of $\overline{AB}$
E is the midpoint of $\overline{AC}$
$m\angle ABC = 20°$
$m\angle ACB = 120°$
$BC = 7$



Find:
$m\angle 1 =$ 40 $m\angle 5 =$ 160
$m\angle 2 =$ 20 $m\angle 6 =$ 20
$m\angle 3 =$ 120 $m\angle 7 =$ 120
$m\angle 4 =$ 60 $DE =$ 3.5

4. Given: KITE is a kite.
M, N, O, P are midpoints
$m\angle KMN = 50°$
$m\angle KIT = 105°$



Find:
$m\angle 1 =$ 80 $m\angle 9 =$ 70
$m\angle 2 =$ 50 $m\angle 10 =$ 55
$m\angle 3 =$ 90 $m\angle 11 =$ 90
$m\angle 4 =$ 40 $m\angle 12 =$ 35
$m\angle 5 =$ 105 $m\angle 13 =$ 105
$m\angle 6 =$ 35 $m\angle 14 =$ 40
$m\angle 7 =$ 90 $m\angle 15 =$ 90
$m\angle 8 =$ 55 $m\angle 16 =$ 50