

# Areas Using Trig Homework (KEY)

①  $\approx 5.8$  sq. cm.

③  $AC \approx 1.5$  cm

$m\angle A \approx 61^\circ$

$m\angle B = 29^\circ$

⑦ Slope of  $\overline{JK} = \frac{3}{2}$   
 Slope of  $\overline{JL} = -\frac{2}{3}$  } So,  $m\angle J = 90^\circ$

$JK \approx 3.6$

$JL \approx 10.8$

$KL \approx 11.4$

$m\angle L \approx 18^\circ$

$m\angle K \approx 72^\circ$

⑨  $A \approx 12,700$  sq. yds.

⑩  $BC \approx 3.8$  m

$m\angle A \approx 50^\circ$

$m\angle C \approx 40^\circ$

⑪  $AB \approx 1.8$  ft.

$BC \approx 29.9$  ft.

⑬ Z can be:  
 $(1,9), (4,8), (5,7), (6,4), (5,1)$

Only  $(5,1)$  creates a right  $\triangle$ .

Verify: slope  $\overline{XZ} = -\frac{3}{4}$

Slope  $\overline{YZ} = \frac{4}{3}$

$\downarrow$   
 $m\angle Z = 90^\circ$

$XY = 5\sqrt{2}$

$XZ = 5$

$YZ = 5$

$m\angle X = m\angle Y = 45^\circ$

⑬  $P = 6 + \sqrt{26} + 5\sqrt{2}$

$A = 15$

$m\angle C = 45^\circ$

$m\angle A = 56^\circ$

$m\angle B \approx 79^\circ$