Geometry Final Exam PP 3

1) $126°$

2) $(x-2)^2 + (y+3)^2 = 25$

3) $A = 44.4°$

4) $y = 5\sqrt{3}$ $\qquad$ $x = 10\sqrt{3}$

5) $7cm < x < 19cm$

6) $A'(-4, 8)$ $\qquad$ $A''(8,4)$

7) $y = 27°$ $\qquad$ $\angle 1 = 115°$ $\angle 2 = 115°$ $\qquad$ $\angle 3 = 148°$ $\qquad$ $\angle 4 = 32°$

8) • The perimeter doubles
   • The area gets 4 times bigger
   • The area gets 9 times bigger

9) $(n-2)180°$

10) $1440°$

11) $360°$

12) Opp sides are $\parallel$
    opp sides are $\cong$
    opp angles are $\cong$
    Consecutive angles are supplementary
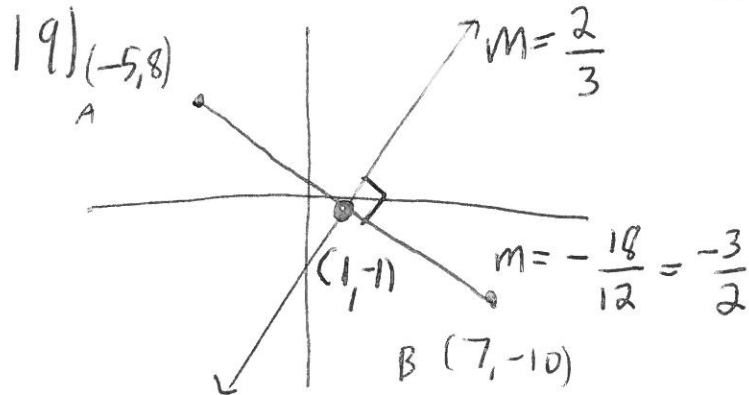   Diagonals bisect eachother.

13) Perpendicular bisectors

14) Equidistant to ~~sides~~ in a triangle.
    Vertices

15) Angle bisectors

16) Equidistant to sides

17) Medians

18) A centroid divides the median into a 2:1 ratio.

19)

$A \ (-5,8)$

$M = \dfrac{2}{3}$

$(1,-1)$

$m = -\dfrac{18}{12} = \dfrac{-3}{2}$

$B \ (7,-10)$

$y + 1 = \dfrac{2}{3}(x-1)$

$y + 1 = \dfrac{2}{3}x - \dfrac{2}{3}$

$\boxed{y = \dfrac{2}{3}x - \dfrac{5}{3}}$

20) $9x - 8 = 50 + 5x - 10$

$\qquad 4x = 48$

$\qquad x = 12$

21) $1080 = (n-2)180$

$\qquad 6 = n-2$

$\qquad \boxed{n=8} \qquad 135°, 45°$

22) $71°$

23) $\longrightarrow x = 9 \qquad y = 10.5$

24) $x = 3.75 \qquad y = 9.75$

(25) $\dfrac{9}{x} = \dfrac{21}{14}$ $\cancel{AB = 9\sqrt{2}}$

$\qquad 21x = 126$ $\qquad \cancel{CB = 18}$

$\qquad x = 6$

(26) $AB = 9\sqrt{2}$

$\qquad CB = 18$

(27) $A(7, -2)$

$\qquad A'(7, 2)$

$\qquad A''(2, 7)$

(28) $x^2 = 6 \cdot 3$

$\qquad x^2 = 18$

$\qquad x = \sqrt{18} = 3\sqrt{2}$

(29)