# Math 206 - Quiz 9

April 11, 2012

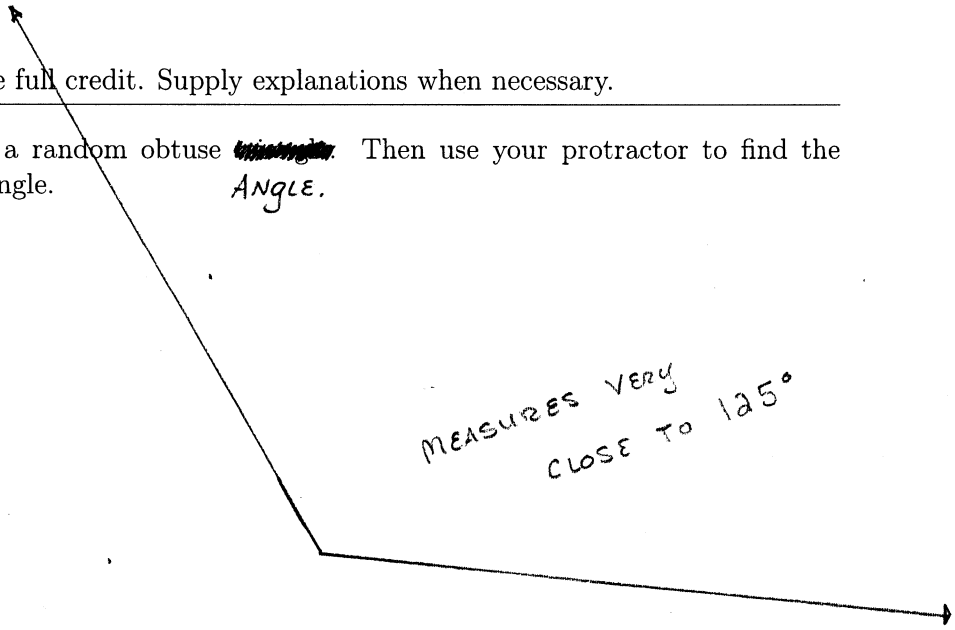
Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (0.5 point) Draw a random obtuse [redacted]. Then use your protractor to find the measure of your angle.

ANGLE.




2. (1 point) Convert $56° 18' 50''$ to degrees in decimal form. Round your final answer to the nearest thousandth.

$56°$

$\frac{18'}{1} \cdot \frac{1°}{60'} = 0.3°$

$\frac{50''}{1} \cdot \frac{1°}{3600''} = 0.0\overline{138}°$

$56.3\overline{138}° \approx \boxed{56.314°}$

3. (0.5 point) Page 743, Problem #19

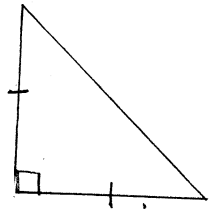
$m(\angle B) = 180° - 55° - 90° = 35°$

$X = 180° - 90° - 35° = \boxed{55°}$

4. (1.5 points) If possible, draw each of the following. If not possible, say why.

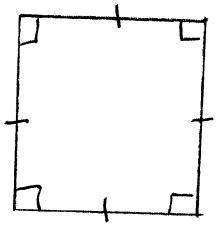
(a) A simple, closed curve that is concave

(b) A right, isosceles triangle



(c) A rectangle that is also a rhombus

GOTTA BE A SQUARE



5. (1 point) Page 743, Problem #18

$m(\angle 1) = 180° - 70° - 45° = 65°$

$m(\angle CED) = m(\angle 1) = 65° \Rightarrow m(\angle 3) = 180° - 65° = 115°$

$m(\angle 2) = m(\angle CED) = 65°$

$m(\angle BFD) = m(\angle 1) = 65° \Rightarrow m(\angle 4) = 180° - 65° = 115°$

6. (0.5 point) Page 743, Problem #17a

$m(\angle 5) = 180° - 45° - 65° = 70°$

5 TRIANGLES, THEN TAKE AWAY ANGLES AROUND THE CENTER

$5 \cdot 180° - 360° = 540°$