

Name: _____
Date: _____
Class: _____

Geometry
Review
Graded Homework 23

Show all of your work for every problem. The numbers in the brackets are the points that each problem is worth. Multiple Choice Problems are worth 3.

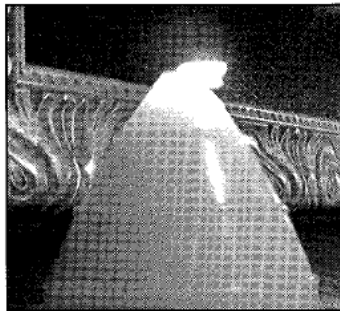
NO WORK = ZERO CREDIT

1) [3] If a line travels through points $(-3, -5)$ and $(7, -3)$, what would the equation of a new line parallel to this line that travels through $(-2, 5)$ be?

2) [3] If two regular octagons are similar, with one side of the smaller octagon having a measurement of 15 inches and an area of 242 square inches, and with the area of the larger octagon 450 square inches. Find the perimeter of the larger octagon.

3) [3]

A candle maker uses a mold to make candles like the one shown below.



The height of the candle is 13 cm and the circumference of the candle at its widest measure is 31.416 cm. Use modeling to approximate how much wax, to the *nearest cubic centimeter*, is needed to make this candle. Justify your answer.

4) [3] If the surface area of a cube is 96 square inches what is the volume of this cube?

5) [3] If segment AB has point C on it, with $AB = 4x - 1$, $AC = x + 1$, and $CB = 2x + 2$, what is the ratio of AC:AB in lowest terms?

6) [3] If two sides of a triangle are $\frac{2}{5}$ and 7.5, what is a range of values for all possible values of the 3rd side?

7) [3] If triangle ABC has the following angles, which side is the middle side in terms of length? $m\angle A = 6x + 4$, $m\angle B = 8x - 10$, and $m\angle C = 7x - 3$.

8) [3] In triangle XTY, the midpoints of side XT and side TY are A and B. Segment YA and segment XB are drawn and meet at point Q. If $XQ = x + 4$ and $QB = x - 3$, find XB.