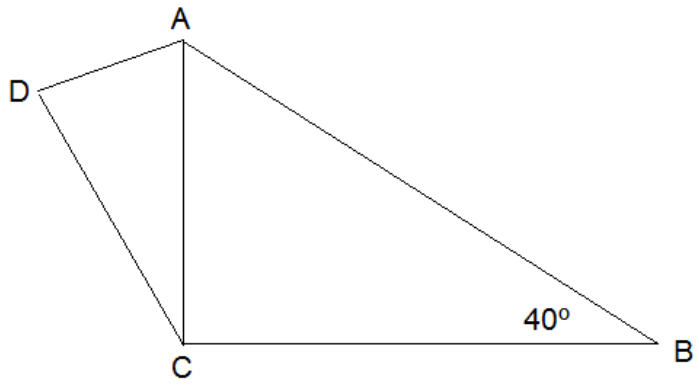
Name:

QUIZ 1- MATH GRADE 10

1. (20%) Given the following diagram. ACB = 90º, ADC = 90º, BC = 10 cm. Find the perimeter of the triangle ADC.



2. (30%) Given a triangle whose side lengths are 8, 11, 6.

    a. (15%) Find the largest angle in the triangle. Give your answer as an expression.

    b. (15%) Find the area of the triangle. Give your answer as an expression.

3. (20%) If A is an obtuse angle in a triangle and $\sin(A) = \frac{5}{13}$, calculate the exact value of $\sin(2A)$.

4. (30%) Given the triangle ABC, AB = 10cm, AC = 8cm, ABC = 10^{o}. Give all answers as expressions.

    a. (4%) The ambiguous case appears in case:

    b. (10%) Sketch all the possible triangles that can be formed.

    c. (16%) Find the possible values of angle ACB.

BONUS (10%)

Find the area of an isosceles triangle whose base is a half of its side and its perimeter is 10 cm^2