## QUIZ - MATH GRADE 11

1. ( $10 \%$ ) Given the following triangle:
a. (5\%) State the sine rule in this triangle:
b. (5\%) State the cosine rule:
$b^{2}=$ $\qquad$

2. $(25 \%)$ Given the triangle $\mathrm{ABC}, \mathrm{AB}=20 \mathrm{~cm}, \mathrm{AC}=10 \mathrm{~cm}, \mathrm{CAB}=60^{\circ}$. Give all answers as expressions.
a. (5\%) Sketch the triangle.
b. ( $10 \%$ ) Find all the angles and sides of the triangle.
c. $(5 \%)$ Find the perimeter of the triangle.
d. $(5 \%)$ Find the area of the triangle.
(35\%) Given the triangle $\mathrm{ABC}, \mathrm{AB}=8 \mathrm{~cm}, \mathrm{AC}=10 \mathrm{~cm}, \mathrm{ABC}=45^{\circ}$. Give all answers as expressions.
a. (5\%) Sketch the triangle.
b. (20\%) Find all the angles and sides of the triangle.
c. $(10 \%)$ Find the area of the triangle.
3. $(30 \%)$ Given the triangle $\mathrm{ABC}, \mathrm{AB}=10 \mathrm{~cm}, \mathrm{AC}=7 \mathrm{~cm}, \mathrm{ABC}=20^{\circ}$. Give all answers as expressions.
a. (15\%) Sketch the possible triangles with the information provided
b. (15\%) Find all the angles and sides of both triangles.
