

Name: \_\_\_\_\_

<p>1. A triangle <math>ABC</math> has sides <math>AB = 4</math> cm, <math>BC = 5</math> cm, <math>AC = 8</math> cm.</p> <p>(a) Find the sine of the largest angle in <math>ABC</math>. Give your answer as an exact value</p> <p>(b) Find the area of the triangle <math>ABC</math></p>	
<p>2. Sketch, on the same axes, sketch the curves with equation <math>y = \frac{1}{x}</math>, <math>y = \frac{3}{x}</math> and <math>y = \frac{1}{x+2}</math>. On your sketches, show the coordinates of points where the curves cross or meet the coordinate axes and the equations of any asymptotes</p>	
<p>3. Find the equation of the normal to the curve <math>y = (1 - \sqrt{x})^2</math> at the point <math>x = 4</math></p>	
<p>4. Solve the equation <math>5 \sin x - 3 \cos^2 x = 2</math> for <math>0 &lt; x &lt; 540^\circ</math></p>	