

PR2.A – TEACHING SOURCES

Title	<i>Trigonometric numbers of angles summing to 180°</i>
Duration	1 session
Age Group	14 – 15 YO
Dimension of the advised group of students	<i>The whole class divided into groups.</i>
Area	<input type="checkbox"/> Area 1: Reading, writing and literature <input checked="" type="checkbox"/> Area 2: Math <input type="checkbox"/> Area 3: Second language learning <input type="checkbox"/> Area 4: Sciences <input type="checkbox"/> Area 5: Soft skills
Specific objectives	<i>Make students actively involved in the learning process</i> <i>Make mathematics more appealing to the students</i> <i>Enhance concentration skills</i> <i>Learn about the importance of team working</i> <i>Interactive way of teaching</i> <i>A more substantial understanding of the concept being negotiated</i>
Needed Materials	<i>Computer, notebook, pen.</i>
Software	<i>The activities are onsite.</i>
Description	<i>With this micro-experiment, students have the opportunity to study the relationship between trigonometric numbers of alternate angles.</i>
Procedure on how to put in practice	<p><i>We ask students to answer the following questions:</i></p> <ol style="list-style-type: none"> <i>1) a) Find the value of angle w when point M has coordinates (2,2)</i> <i> b) Find the value of the angle w when point M has coordinates (-2,2)</i> <i> c) What is the relationship between the two angles?</i> <i>2) a) What is the relationship between the sine of the two angles?</i> <i> b) What is the relationship between the cosines of the two angles?</i> <i> c) What is the relationship between the tangents of the two angles?</i> <i>3) Repeat the calculations for points A(2,3), A'(-2,3), B(-2,1), B'(2,1), C(3,4), C'(-3,4)</i> <i>4) Formulate a rule</i> <p><i>Students work divided into groups. At the end the class as a whole, formulates the final conclusion.</i></p>
Link	http://photodentro.edu.gr/v/item/ds/8521/2107