



Angle Properties – technology mix

- activity developed with Geoff Dix, Rosebank College for his Yr 9 class

Although the computing power of the TI-83 is impressive, it falls short of the power of a real computer. Geoff is well experienced in the constructive use of a range of interactive computer software that helps students explore, discover and understand. His classroom is equipped with laptop and digital projector and Geoff has already prepared a vast range of great interactive investigations for his students. So the question emerges, “Why then bother with a hand-held technology platform?” Really that’s the main answer; that it’s *hand-held* and every student can have one. It’s smaller and more portable than a PC and projector set up and a great deal less expensive.

This lesson was essentially in two parts:

- i) angle properties illustrated with dynamic geometry on a large screen
- ii) students each using calculators and CabriJnr to make their own dynamic constructions.

It was a great lesson, just with the first part and students were actively involved in the discussion. The second part took things a step further by putting the dynamic geometry into the hands of every student.

In WinGeom, Geoff illustrated (and invited students to his PC to illustrate):

WinGeom

i) angle between two rays

$\angle ABC = 25^\circ$

ii) complementary angles in a right angle

$\angle ABC = 90^\circ$
 $\angle abd = 61^\circ$
 $\angle dbc = 29^\circ$

iii) supplementary angles in a straight angle

$\angle ABC = 180^\circ$
 $\angle abd = 151^\circ$
 $\angle dbc = 29^\circ$

iv) vertically opposite angles

$\angle AED = 44^\circ$
 $\angle CEB = 44^\circ$

CabriJnr on TI-83

It only took minutes to illustrate some basics of the CabriJnr App to students and then they were flying with it to make their own constructions.