MA 158

Quiz 13                                                  4 Noέμβριος 2016

**Instructions:**  Show all work, with clear logical steps. No work or hard-to-follow work will lose points.

**Problem 1.** (2 points) Given the following information, approximate the radian measure of the acute angle $\theta$ to two decimal places.

$$\cos\theta = 0.0795$$

*Solution.* $\theta = \cos^{-1}(0.0795) \approx 1.49$. Note that $\frac{\pi}{2} \approx 1.57$, so this is the acute angle that we want. (Make sure your calculator is in radians!)                    ☺

**Problem 2.** (2 points) Given the following information, approximate the degree measure of the acute angle $\theta$ to the nearest minute.

$$\tan\theta = 1.4733$$

*Solution.* $\theta = \tan^{-1}(1.4733) \approx 55.83336°$. Using the DD▷ DMS button on your course-approved TI-30Xa calculator, you can immediately see that this is approximately $\boxed{55°50'.}$ Otherwise, you could find this by calculating $.83336 \cdot 60 \approx 50$.                    ☺