Name: Richard Hammack

August 29, 2012

I'm in the Thurs11 Thurs12 Thurs1 or (Fri10) recitation. (Circle one)
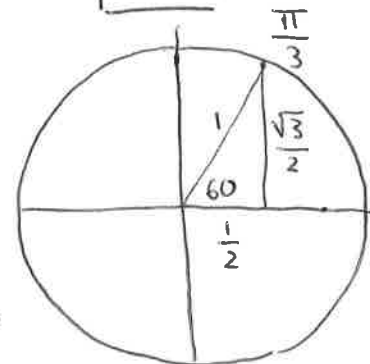
MATH 200 – Quiz 1

(1) Suppose $h(x) = \sqrt{x^3 + 1}$. State functions $f(x)$ and $g(x)$ such that $f \circ g = h$.

$f(x) = \sqrt{x}$
$g(x) = x^3 + 1$ } because then $f(g(x)) = f(x^3 + 1) = \sqrt{x^3 + 1} = h(x)$

(2) Convert 135 degrees to radians. $\text{rad} = \frac{135}{180}\pi = \frac{3 \cdot 45}{4 \cdot 45}\pi = \boxed{\frac{3}{4}\pi}$

(3) $\tan(\pi/3) = \dfrac{\sin\left(\pi/3\right)}{\cos\left(\pi/3\right)} = \dfrac{\frac{\sqrt{3}}{2}}{\frac{1}{2}} = \boxed{\sqrt{3}}$



(4) (Optional) Name one mathematician (not from VCU) from the past or present.
*Hint: Einstein was not a mathematician!*

Euler

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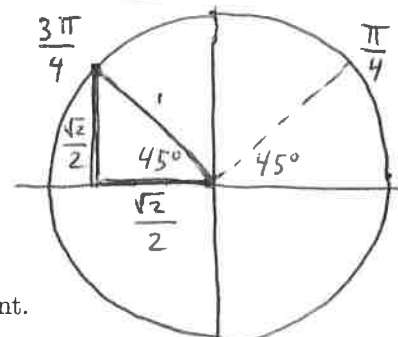I'm in the Thurs11 Thurs12 Thurs1 or (Fri10) recitation. (Circle one)

MATH 200 – Quiz 1

(1) Suppose $h(x) = \dfrac{1}{x^2 + 2}$. State functions $f(x)$ and $g(x)$ such that $f \circ g = h$.

$f(x) = \dfrac{1}{x}$
$g(x) = x^2 + 2$ } because then $f(g(x)) = \dfrac{1}{g(x)} = \dfrac{1}{x^2 + 2} = h(x)$

(2) Convert 75 degrees to radians. $\text{rad} = \frac{75}{180}\pi = \frac{25}{60}\pi = \boxed{\frac{5}{12}\pi}$

(3) $\tan\left(\frac{3\pi}{4}\right) = \dfrac{\sin\left(\frac{3\pi}{4}\right)}{\cos\left(\frac{3\pi}{4}\right)} = \dfrac{\frac{\sqrt{2}}{2}}{-\frac{\sqrt{2}}{2}} = \boxed{-1}$



(4) (Optional) Name one mathematician (not from VCU) from the past or present.
*Hint: Einstein was not a mathematician!*

Gauss