

Math-1432 Final Review – Worked out solutions

Problem 7

a) $\cot(-540^\circ) = \cot(2 \cdot 360 - 540) = \cot(720 - 540) =$

$$\cot(180) = 1/\tan(180) = 1/0 \rightarrow \text{undefined}$$

b) $\sin(60^\circ) + \cos(45^\circ) = \frac{\sqrt{3}}{2} + \frac{\sqrt{2}}{2} = \frac{\sqrt{3} + \sqrt{2}}{2}$

c) $\sin^2(213^\circ) + \cos^2(213^\circ) = 1$ since $\sin^2(x) + \cos^2(x) = 1$ for all x

d) $\tan 0 - 6 \cos^2(180^\circ) = 0 - 6(\cos(180^\circ))^2 = -6 \cdot (-1)^2 = -6 \cdot 1 = -6$