а) $\ldots = -ctg\alpha \cdot (-ctg\alpha) - ctg\alpha \cdot ctg\alpha = 0;$

$\ldots)\ \ \ldots = \dfrac{2sin\alpha\ cos\alpha(-tg\alpha)}{-tg\alpha\ sin\alpha} = 2cos\alpha;$

б) $\ldots = \dfrac{-tg\alpha\ (-cos\alpha)ctg\alpha}{cos\alpha\ (-tg\alpha)(-ctg\alpha)} = 1$

б) $\ldots = -arctg\dfrac{\sqrt{3}}{3} + \left(\pi - arccos\dfrac{1}{2}\right) + \dfrac{\pi}{2} = -\dfrac{\pi}{6} + \pi - \dfrac{\pi}{3} + \dfrac{\pi}{2} = \pi$

в) $\ldots = 3 \cdot \left(-\dfrac{\pi}{2}\right) - \dfrac{3}{2} \cdot \left(\pi - \dfrac{\pi}{6}\right) - 7{,}5 \cdot \left(\pi - \dfrac{\pi}{6}\right) =$

$= -\dfrac{3\pi}{2} - \dfrac{3\pi}{2} + \dfrac{\pi}{4} - 7{,}5 \cdot \dfrac{5\pi}{6} = -9$

г) $\ldots = 5 \cdot \left(-\dfrac{\pi}{3}\right) - 8\pi - 6 \cdot \dfrac{\pi}{3} = -\dfrac{5\pi}{3} - 8\pi - 2\pi = -\dfrac{35\pi}{3}$