

# Simplified Answers - Inverse Trig Functions WS 1

$$1) \frac{1}{\sqrt{2t(1-2t)}}$$

$$2) \frac{6}{t\sqrt{t^4-9}}$$

$$3) \sin^{-1} t$$

$$4) \frac{1}{|2t+1|\sqrt{t^2+t}}$$

$$5) \frac{-2}{(t^2+1)\sqrt{t^2+2}}$$

$$6) 2t \sec^{-1} \frac{1}{t} - \frac{t^2}{\sqrt{1-t^2}}$$

$$7) \frac{\cot^{-1} \sqrt{t-1}}{t} - \frac{\ln 3t}{2t\sqrt{t-1}}$$

$$8) 0$$

$$9) 0$$

$$10) \frac{3e^{3t} \tan^{-1} \sqrt{t}}{\ln t} + \frac{e^{3t}}{2\sqrt{t}(\ln t)(1+t)} - \frac{e^{3t} \tan^{-1} \sqrt{t}}{t(\ln t)^2}$$