

Find the following derivatives:

1. $\frac{d}{dx} \left[\frac{1+x}{1-x} \right]$

1b. $\frac{d}{dz} \left[\frac{1+z}{1-z} \right]$

2. $\frac{d}{dx} \left[\frac{1+\sin x}{1-\sin x} \right]$

2b. $\frac{d}{d\theta} \left[\frac{1+\sin \theta}{1-\sin \theta} \right]$

3. Suppose $f(u) = 5 \sin(u)$ and u is a function of t with $\frac{du}{dt} = 6$. Find $f'(t) = \frac{df}{dt}$.

Your answer will have both a u and a t in it.