1. A rocket is launching, and its height h in meters is a function of t in seconds (so we are considering the function $h(t)$). Explain what $h'(10) = 1035$ means in language your parents could understand. You answer must include units.

Compute derivatives of the following functions using derivative rules.

2. $f(t) = e^t \cos(t)$

3. $f(x) = \dfrac{x}{1 + e^x}$

4. $f(t) = e^{-t}$

5. $e^{-t}\cos(t)$

6. $f(x) = \dfrac{1}{1+x^2}$

7. $f(x) = (1+x^2)e^x \sin(x)$

8. $f(v) = \left(1 + \frac{1}{v}\right)\left(2 - \frac{1}{v}\right)$

9. $f(\theta) = \frac{\sin(\theta)}{\cos(\theta)}$