

YOU MAY USE A CALCULATOR TO COMPUTE SOLUTIONS BUT SHOW YOUR SET-UPS.

Show all relevant work!

Consider the compound interest function:

$$B = B_0 \left(1 + \frac{r}{n}\right)^{nt}$$

① Find the following derivatives:

(a) $\frac{dB}{dB_0}$

(b) $\frac{dB}{dr}$

(c) $\frac{dB}{dt}$

(d) $\frac{dB}{dn}$

② Interpret the meaning of each derivative in the context of compound interest. You may use units (e.g. dollars, months, %) to help describe your interpretation.