

MATH 102 REVIEW #10

1. A RADIOACTIVE SUBSTANCE DECAYS EXPONENTIALLY.
EVERY 167 DAYS ITS MASS IS REDUCED BY
HALF. ~~IF AN OBJECT CONTAINS~~
HOW LONG WILL IT TAKE FOR ONLY 1%
OF THE ORIGINAL SUBSTANCE TO REMAIN?
2. FIND THE DOMAIN OF $f(x) = \frac{x}{1 - \tan(x)}$
ON $0 \leq x \leq 2\pi$
3. IS $f(x) = x^3 \sin(x) - 2 \cos(x)$
EVEN, ODD, BOTH, NEITHER?
4. AN ARROW'S HEIGHT (IN m) AFTER t SECONDS
IS GIVEN BY $h(t) = 40 - 5t^2$
- a) WHEN DOES IT HIT THE GROUND?
- b) WHAT IS ITS MAXIMUM HEIGHT?