

Physics 262: Homework #14

1. (2 points) In the twin paradox, the naive calculation of Terra's age by Stella led to disagreement on Terra's age when Stella arrives home. If Terra emits light with constant frequency, use the doppler shift to calculate how many wave crests Stella receives from Terra on each part of journey. If the frequency of light emitted by Terra is known by Stella and this is used to calculate Terra's age, do they now agree on Terra's age?
2. (1 point) Ohanian 3.12
3. (1 point) Ohanian 3.19
4. (1 point) Ohanian 3.27
5. (1 point) Ohanian 3.32