

MTH 3311 Practice Test #2

SUMMER 2016

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Name _____

1. (p. 109 #2) Water at temperature 10°C takes 5 minutes to warm up to 20°C in a room at temperature 40°C
 - (a) Find the temperature after 20 minutes; after 30 minutes
 - (b) When will the temperature be 25°C ?

2. (p. 109 #5) If 30% of a radioactive substance disappears in 10 days, how long will it take for 90% to disappear?

3. (p. 79 #7) A 192 lb weight has limiting velocity 16 ft/sec., when falling in air, which provides a resisting force proportional to the weight's instantaneous velocity. If the weight starts from rest:
 - (a) Find the velocity of the weight after 1 second.
 - (b) How long is it before the velocity of the weight is 15 ft/sec?