

# Bio& 241 Unit 3 Lab 3

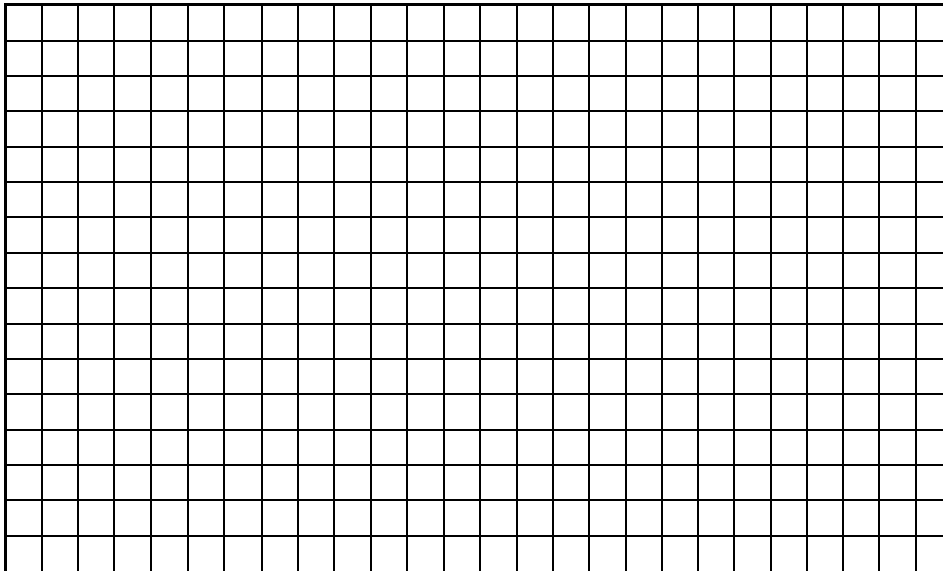
Name \_\_\_\_\_

## Muscle Physiology

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Updated: winter 06

**Activity 1:** Using the graph below, draw a **simple twitch** that has a latent period of 2msec, a contractile period of 10msec with a maximum contraction force of 2g, and a relaxation period of 10msec. Make sure you indicate the point of stimulus with an arrow and label latent, contraction and relaxation periods on your graph.



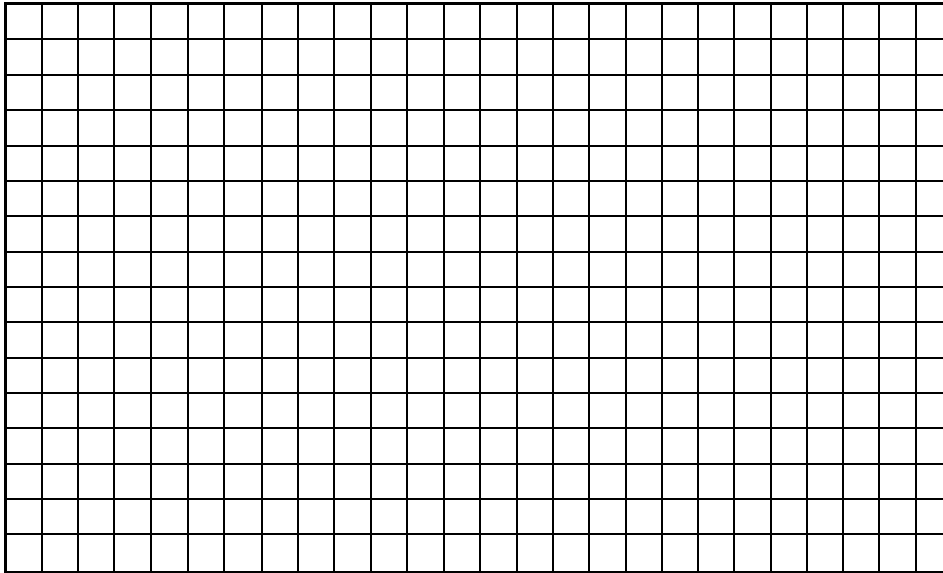
Using the list of events for muscle contraction from the lecture 2 PowerPoint, match the numbers of the steps from lecture 2 with the correct periods below in which they would occur.

**Latent period:**

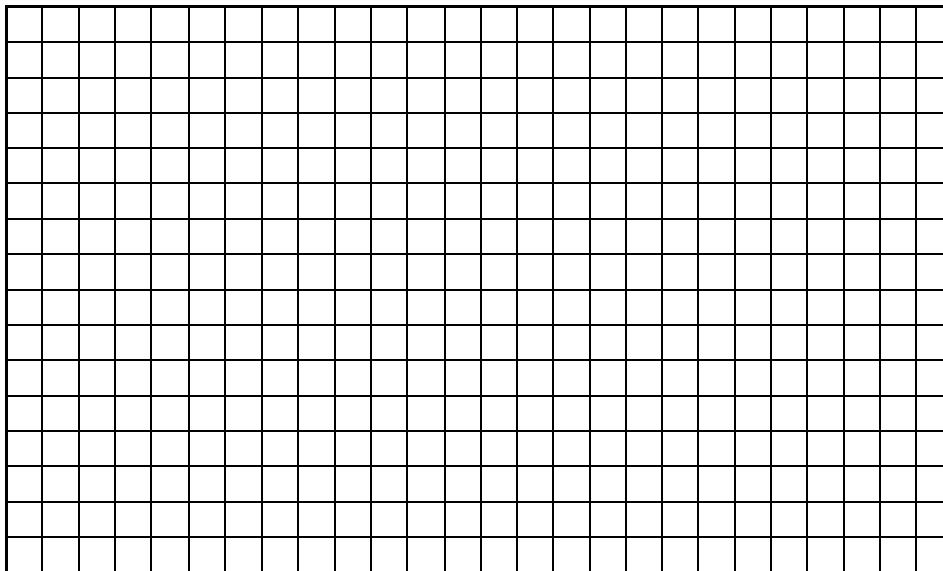
**Contraction period:**

**Relaxation period:**

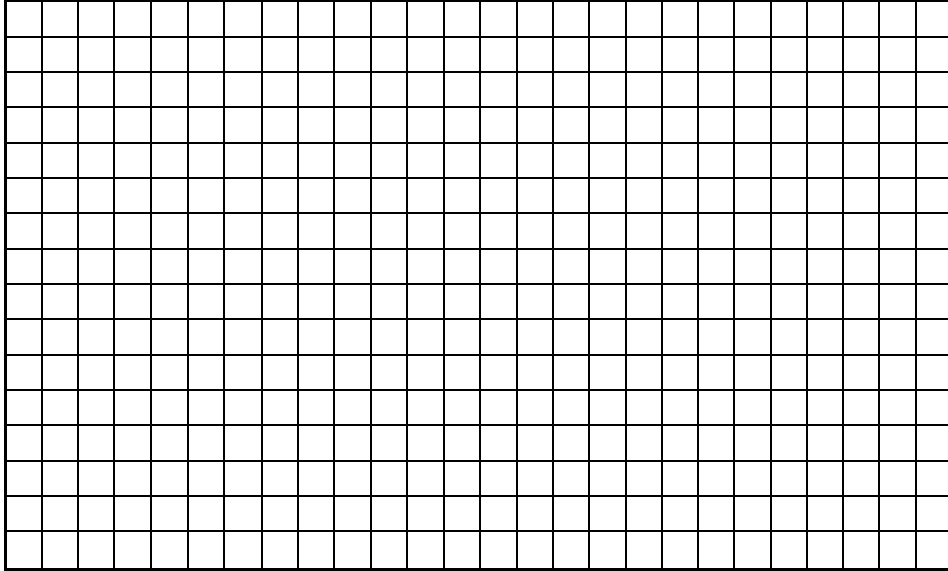
**Activity 2:** Using the graph paper below, draw a graph of a **wave summation** the resulted from two stimuli. Make your graph using the follow perimeters: The latent period for both stimuli of 2msec, Indicate both points of stimuli with an arrow, force of contraction of the first contraction 2g and second contraction of 4gs, both contractile periods of 10 msec, first relaxation period of 2msec with a drop in force of .5g, and a final relaxation period of 10msec.



**Activity 3:** Using the graph paper below, draw a graph of **incomplete or unfused tetany**. You can establish your own perimeters regarding times and force of contraction. You do need to indicate points of stimuli with arrows on the graph.



**Activity 3:** Using the graph paper below, draw a graph of complete or **fused tetany**. You can establish your own perimeters regarding times and force of contraction. You do need to indicate points of stimuli with arrows on the graph.



1. What is the difference with the stimuli used to create a graph of incomplete tetanus as compared to a graph of complete tetanus?