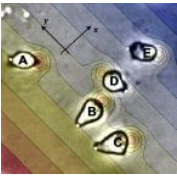


Physics 131-Physics for Biologists I



Professor: Wolfgang Losert
wlosert@umd.edu

Final exam:
Wednesday December 18th
6.30pm-8.30pm

MIDTERM 1: October 4

EXTRA office hours (in course
center: **Monday 11am-noon**
Wednesday noon-1pm

1. I have a 9am exam and wish to take the Physics 131 midterm at 10.30am-11.20am

3. Testing Clicker

If your Clicker is blinking RED, that means you did not enter your clicker # correctly on CANVAS!

REGISTER YOUR CLICKER THIS WEEK

When a ball is held in my hand it is still pulled down by the earth.

Identify one or more Newton's third law force pair(s) in this system

(Whiteboard, TA & LA)



Which representation contains Newton's third law "force pairs?"

1. The System Schema **always**
2. The System Schema **sometimes**
3. The System Schema **never**

4. One Free Body Diagram **always**
5. One Free Body Diagram **sometimes**
6. One Free Body Diagram **never**

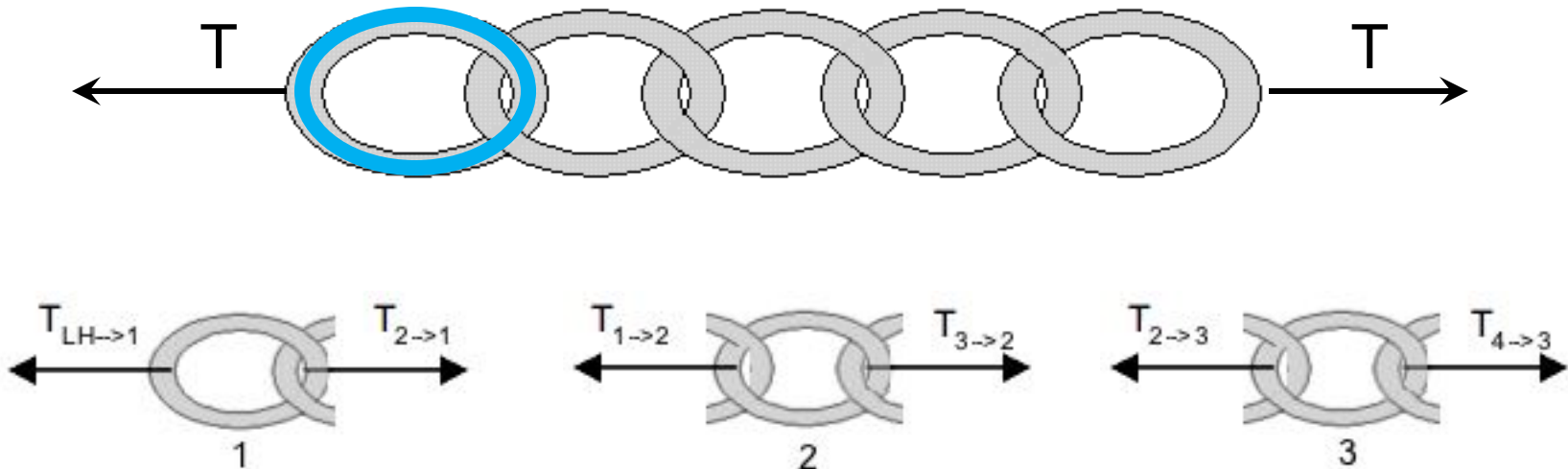
7. TWO Free Body Diagram **always**
8. TWO Free Body Diagram **sometimes**
9. TWO Free Body Diagram **never**

Tension: The Chain

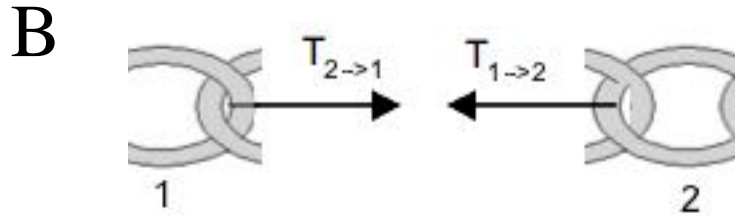
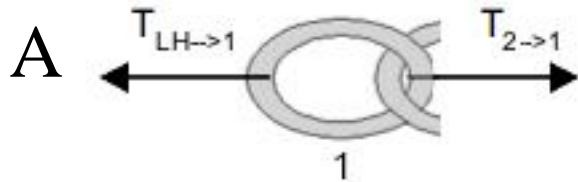
Consider a series of links of chain being pulled from opposite directions. The chain is NOT moving.

- *Sketch free body diagram for blue ring*
- *Identify Newton's 3rd law force pair*

(Whiteboard, TA & LA)



Which of the force pairs are examples of Newton's third law



1. A
2. B
3. A and B
4. neither