

(8 points; 10 minutes)

3. Create a 90% confidence interval for the difference between the two population means represented by the means of the two samples. (Assume that variation is the same for both populations.)

	A	B
	135	90
	86	110
	95	130
	85	98
	167	80
	93	113
	94	
	131	
	119	
average	111.7	103.5
st. dev.	28.2	17.9
n	9	6

Based on your confidence interval, is it reasonable to claim that  $\mu_B$  is 102 and  $\mu_A$  is 113?

YES      NO      Why?

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4. Use the data on personal net worth and happiness scores for a random sample of 6 people to test the claim that net worth and happiness are positively correlated. (Let  $\alpha = 0.05$  for this test.)

Person:	1	2	3	4	5	6
Net worth*:	65	120	127	131	190	83
Happiness:	7	4	7	10	7	1

\* in \$1000's

Claim: \_\_\_\_\_

H<sub>0</sub>: \_\_\_\_\_

H<sub>1</sub>: \_\_\_\_\_