

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

COURSE: Basic Principles/Industrial Wiring  
COURSE#: ELC191  
TOPIC: Voltage Drop Test (rev A)  
INSTRUCTOR: Mr. Frank R. Lombardo

Please answer the following questions.  
Each question is worth two points, 24 points total.  
Please show all work.

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Voltage Drop.

\*\*\*\*\*For "K"--- Use 12.9 for copper and 21.2 for aluminum\*\*\*\*\*

Find the voltage drop for each of the following single phase circuits:

1. 6 AWG aluminum 175 ft. 37 A
2. 4 AWG copper 95 ft. 78 A
3. 2 AWG aluminum 90 ft. 100A

Find the wire size for each of the following single-phase circuits.  
Make sure to give what size wire.

4. 120 V 41 A 205 ft. copper wire
5. 240 V 60 A 80 ft. aluminum wire
6. 240 V 75 A 200 ft. copper wire



Find the maximum distance for each of the following single-phase circuits.

7. 4 AWG aluminum 60 A 240 V
8. 2 AWG aluminum 80 A 240 V
9. 1/0 AWG aluminum 100 A 240 V

Find the maximum load for each of the following single-phase circuits.

10. 8 AWG copper 208 V 145 ft.
11. 1/0 AWG aluminum 208 V 180 ft.
12. 4 AWG copper 240 V 250 ft.

