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#Name: Ian Wang
#UIN: 227004716
#Section 510
#In the midst of the chaos that high school was,
#I taught myself piano, and aim to learn even more songs.
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1. Prepare at least 2 cylindrical concrete samples of the same age of 6x12 inch and make sure they do not dry out
2. Check to make sure length to diameter is not between 1.75 to 1.00
3. Record mass of samples
4. Cap cylinder with sulfur mortar
    a. Sulfur should be applied at least 2 hours in advance
5. In the middle of the concrete take 2 measurements of the diameter at 90 degrees from each other
6. Check to make sure diameter doesn't differ by more than 2%
7. Use average diameter to calculate cross-sectional area
8. Make sure cylinder ends within perpendicularity with the cylinder axis by .5 degrees
9. Ends should be plane within .0002 inches
10. Cylinders should be centered in the compression-testing machine
11. They should be loaded to failure at a rate of 20-50 psi/s
12. Record type of break
13. Maximum load divided by the cross-sectional area equals the strength of the concrete
14. Round strength to the nearest 10 psi or .1 MPa
15. Record all data including date
16. All samples from the same set and age shouldn't differ by more than 2-3% of each other

length_sample1: length of sample 1

diameter_sample1: diameter of sample 2

length_sample2: length of sample 2

diameter_sample2: diameter of sample 2

mass_sample1: Mass of sample 1

mass_sample2: Mass of sample 2

csa_sample1: Cross sectional area of sample 1

csa_sample2: Cross sectional area of sample 2

maxload_sample1: Max load of sample 1

maxload_sample2: Max load of sample 2

breaktype_sample1: Type of break in 1

breaktype_sample2: Type of break in 2

Strength_sample1: Strength in sample 1

Strength_sample2: Strength in sample 2