

Metric Mastery

NCSO Sample Event
2012 Division B Tournament



STATION 1

Use the spring scale to find the weight of each item in grams

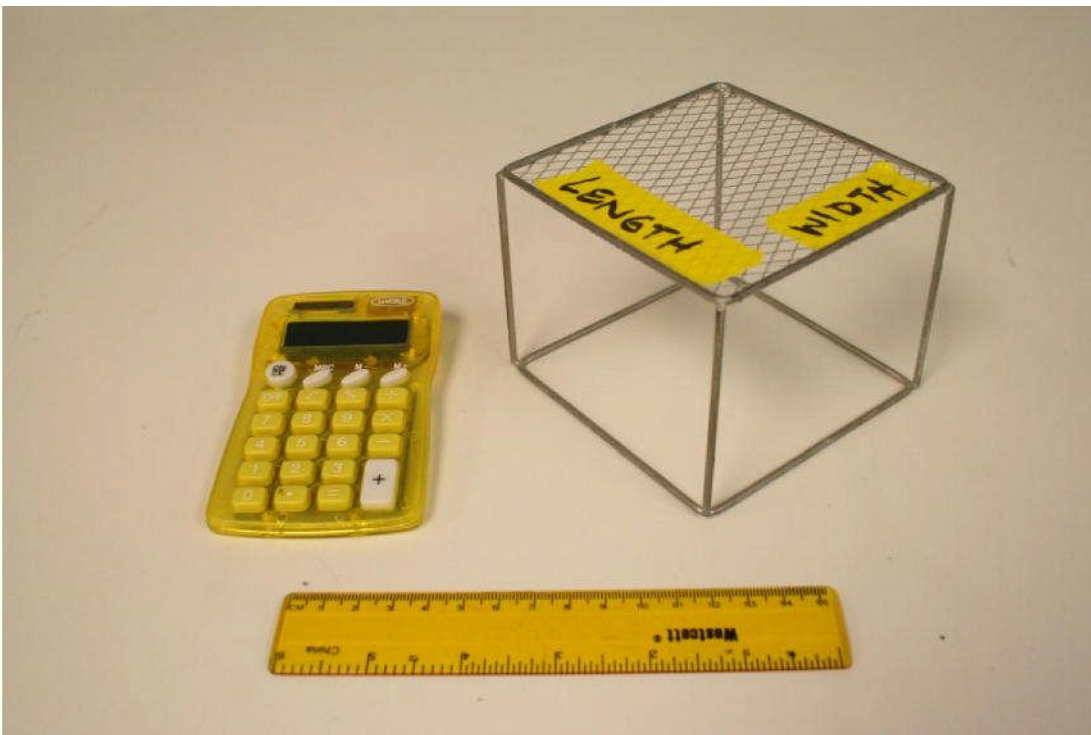
1. Bottle
2. Washers
3. Duct tape ball



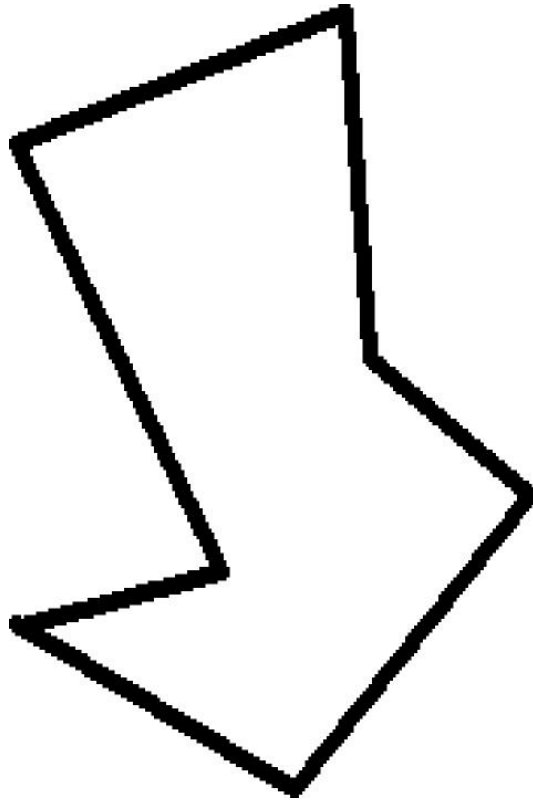
STATION 2

Measure the object.

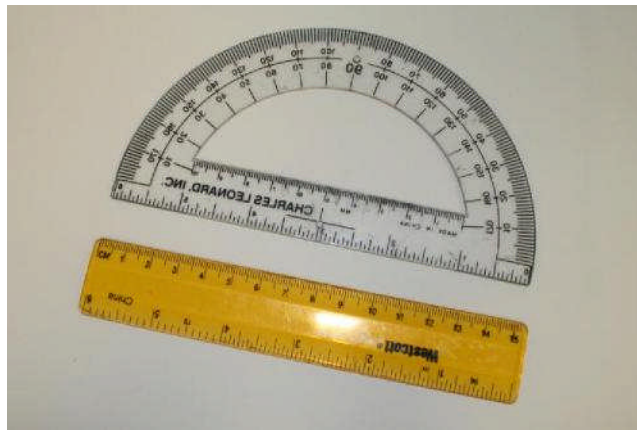
4. What is the height?
5. What is the width?
6. What is the length?
7. What is the total volume?



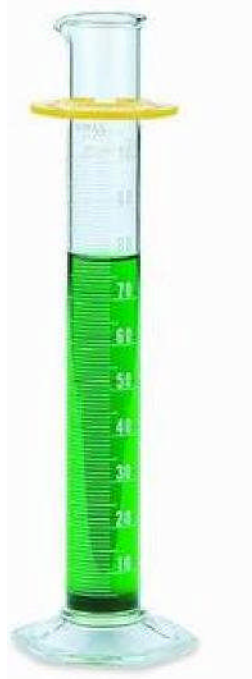
STATION 3



8. What is the sum of **all** the acute angles?



STATION 4



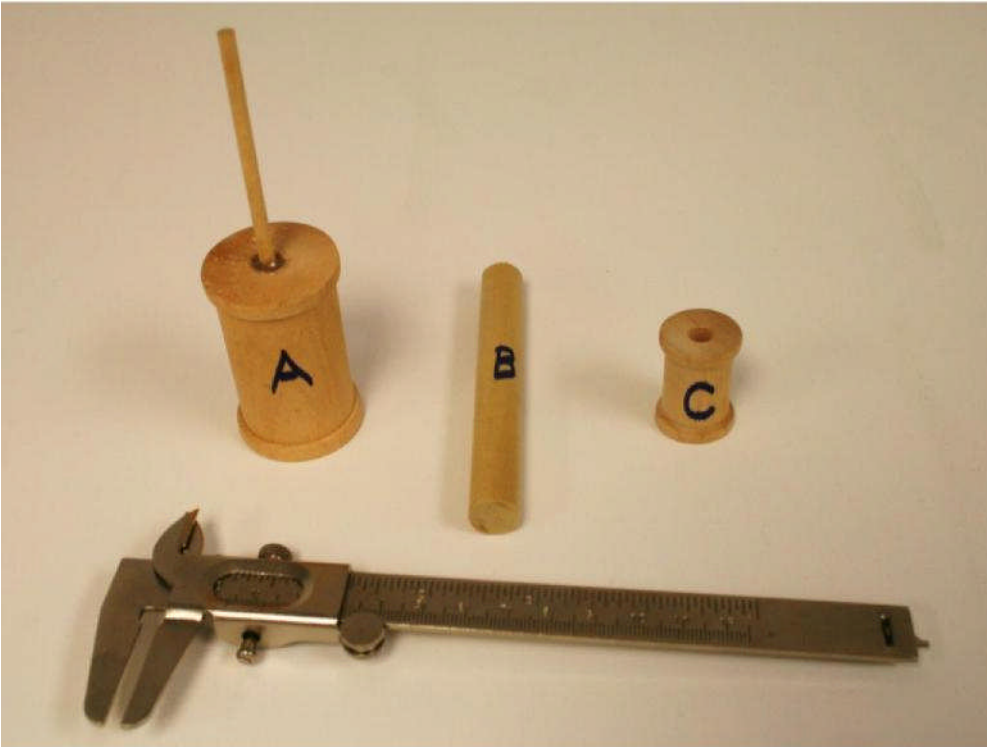
9. Which object has a greater volume, the rock or the fishing weight?

STATION 5

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10. What is the length of the red line in cm?
 11. What is the length of the green line in mm?
 12. What is the total length of both lines together in meters?

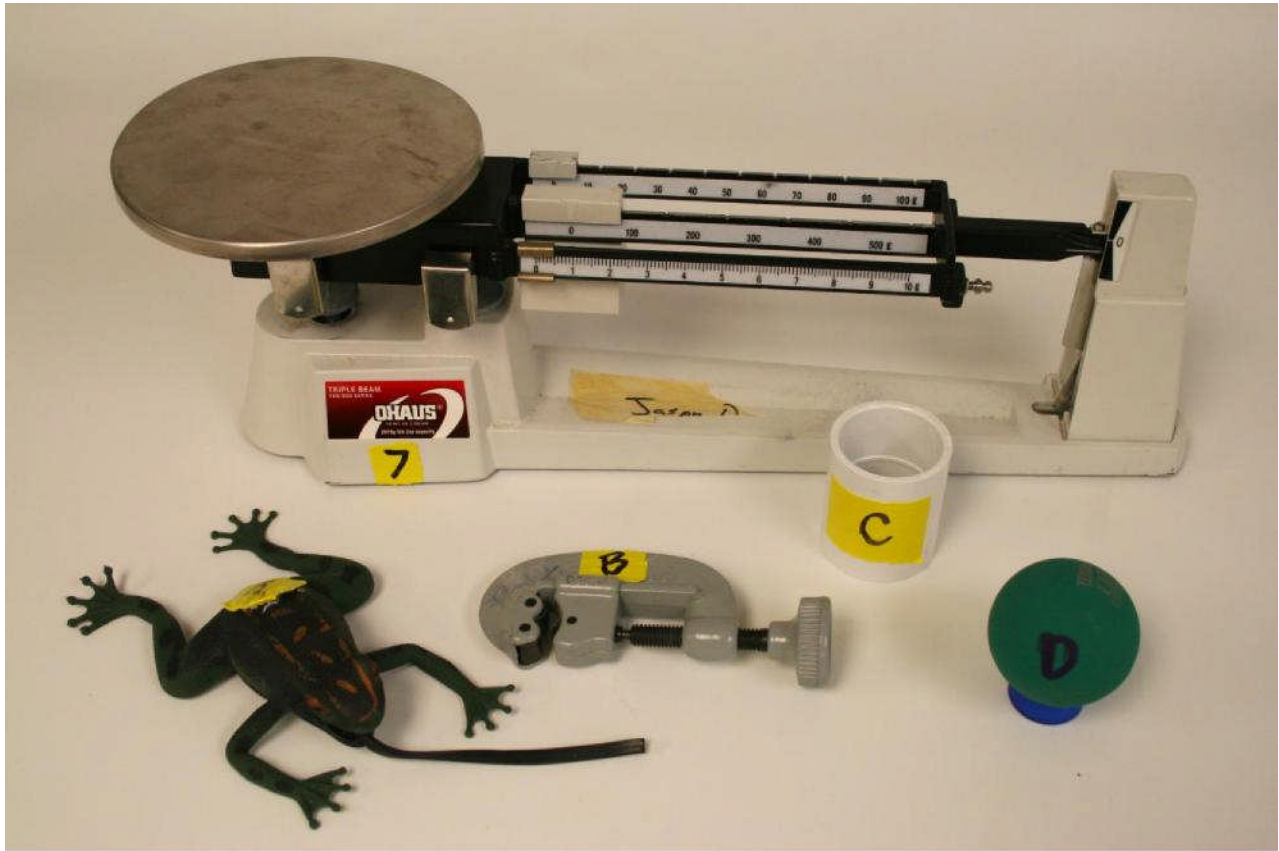


STATION 6



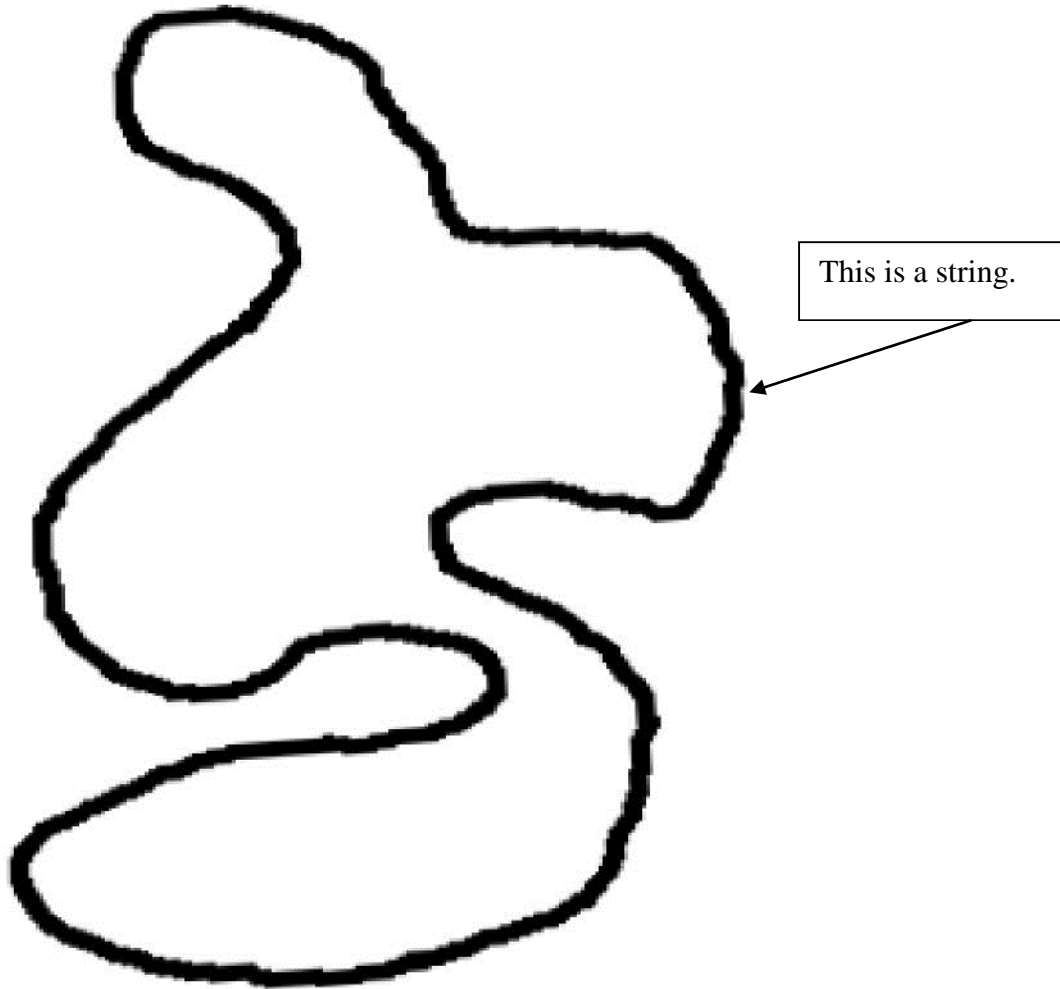
13. What is the diameter of part A in mm?
14. What is the radius of part B in mm?
15. What is the circumference of part C in mm?

STATION 7



16. What is the mass of item A?
17. What is the mass of item B?
18. What is the mass of items C and D together?

STATION 8



19. What is the perimeter of the shape in cm?

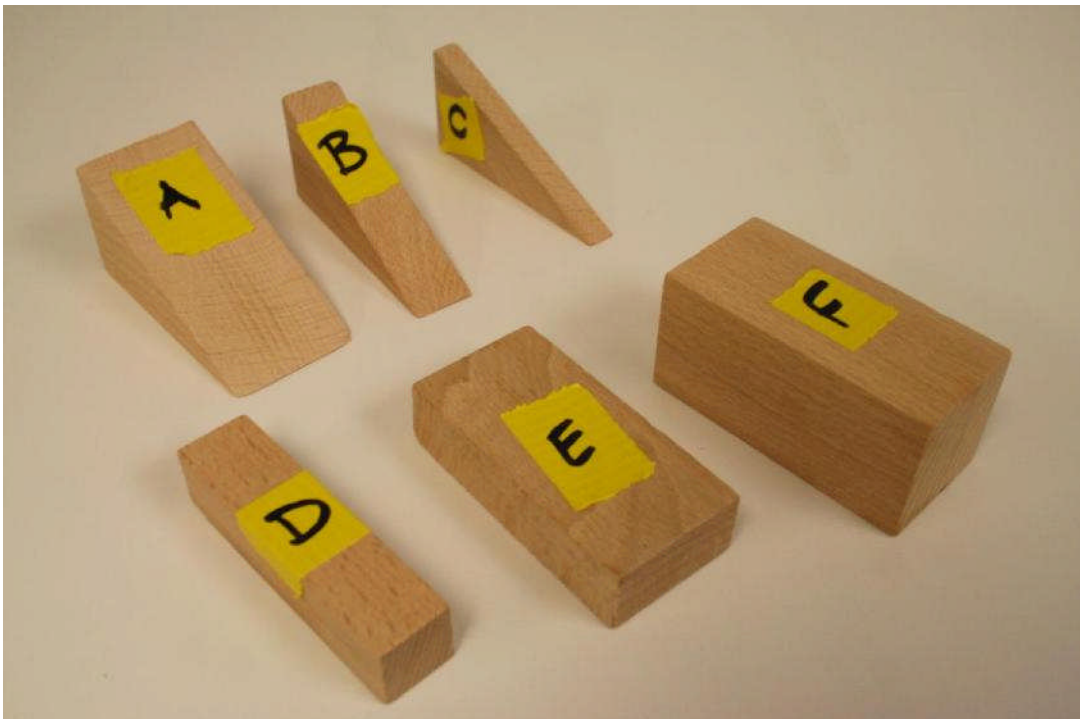
STATION 9

Assume the volume of A is 20 cm^3

20. What is the volume of B?
21. What is the Volume of C?

Assume the volume of D is 12 cm^3

22. What is the volume of E?
23. What is the volume of F?



STATION 10

24. How many liters of dark soda are there total?
25. How many mL of light soda are there total?
26. If you subtract the light soda from the dark soda, what is left in mL?



2012 Metric Mastery

NCSO Sample Event- Student Response Sheet

Names: _____ , _____

School: _____

Station 1:

1.

2.

3.

Station 6:

13.

14.

15.

Station 2:

4.

5.

6.

7.

Station 7:

16.

17.

18.

Station 3:

8.

Station 8:

19.

Station 4:

9.

Station 9:

20.

21.

22.

23.

Station 5:

10.

11.

12.

Station 10:

24.

25.

26.

2012 Metric Mastery

NCSO Sample Event- Student Response Sheet

ANSWER KEY

Station 1:

1. 48 g

2. 75 g

3. 28 g

Station 6:

13. 32 mm

14. 13 mm

15. 18 mm

Station 2:

4. 8 cm

5. 10 cm

6. 10 cm

7. 800 cm

Station 7:

16. 89 g

17. 361 g

18. 89 g

Station 3:

8. 285°

Station 8:

19. 58 cm

Station 4:

9. rock

Station 9:

20. 10 cm³

21. 5 cm³

22. 24 cm³

23. 48 cm³

Station 5:

10. 8.4 cm

11. 130 mm

12. 0.214 m

Station 10:

24. 1.228 L

25. 533 mL

26. 695 mL
