

1.

10 inches	2.54 cm	1 meter
	1 inch	100 cm

according to the setup above I would:

- multiply 10 inches x 100 cm
- multiply 100cm x 2.54 cm
- multiply 10 inches x 2.54 cm
- multiply 1 meter x 1inch
- all of the above

2.

10 inches	2.54 cm	1 meter
	1 inch	100 cm

according to the problem above the only unit that would not be cancelled out would be:

- inches
- meter
- centimeter
- all of them are cancelled out
- none of them are cancelled out

3. Determine the volume in Liters of a 1.00 ounce bottle (1.06 qt = 1 L; 32 ounces = 1 qt)

- .0295 L
- .03125 L
- .03313 L
- 30.2 L
- 33.9 L

4. A football field is 100 yards long. What is the length in centimeters? (1yard = .9144m; 1m = 110cm)

- .09144 cm
- 91.44 cm
- 274.32 cm
- 334 cm
- 9144cm

5. Most races are now measured in kilometers. What is the distance in miles a runner must complete in a 10 kilometer race? (1km = .62137miles)

- 3.1 miles
- 6.2 miles
- 16.1 miles
- 32.2 miles
- 62.137

6. A mole is:

- a unit of measurement
- $6.02 \times 10^{23}$  atoms
- used to measure atoms
- all of the above

7. What is the correct setup for finding how many atoms are in 5 grams of Carbon?

a.

$6.02 \times 10^{23}$ atoms	1 mole Carbon	5 grams Carbon
	12 grams Carbon	1 mole Carbon

b.

5 grams Carbon	12 grams Carbon	$6.02 \times 10^{23}$ atoms
	1 mole Carbon	1 mole Carbon

c.

5 grams Carbon	1 mole Carbon	$6.02 \times 10^{23}$ atoms
	12 grams Carbon	1 mole Carbon

d.

12 grams Carbon	1 mole Carbon	$6.02 \times 10^{23}$ atoms
	5 grams Carbon	1 mole Carbon

8. How many atoms are in .5 moles?

a)  $8.3 \times 10^{-25}$  atoms

b)  $3 \times 10^{23}$  atoms

c)  $1.2 \times 10^{24}$  atoms

d)  $6.02 \times 10^{23}$  atoms

9. How many grams are in 3.8 moles of Calcium?

a) .095 grams

b) 10.52 grams

c)  $6.02 \times 10^{23}$  grams

d) 152 grams

10. How many moles are in 87 grams of Magnesium?

a) .27 moles

b) 3.6 moles

c) 2114.1 moles

d) 1 mole