

This print-out should have 17 questions. Multiple-choice questions may continue on the next column or page – find all choices before answering. The due time is Central time.

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**ChemPrin3e A 02**

01:03, basic, multiple choice, < 1 min, wording-variable.

**001**

A chemist investigates the  
 I) flammability  
 II) melting point  
 III) boiling point  
 of acetone, a component of fingernail polish remover. Which is/are physical?

1. II and III only
2. I and III only
3. III only
4. II only
5. I and II only
6. None of these
7. I, II and III
8. I only

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**Mlib 00 5005 alt**

01:04, general, multiple choice, > 1 min, fixed.

**002**

Which of the following is an extensive physical property?

1. density
  2. color
  3. reactivity
  4. mass
- 

**Mlib 00 5503**

01:03, general, multiple choice, > 1 min, fixed.

**003**

What is NOT a physical changes?

1. melting ice
2. the burning of a match
3. the boiling of mercury
4. the breaking of a pencil
5. the dissolving of salt in water

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**ChemPrin3e G 03 04**

01:05, basic, multiple choice, < 1 min, wording-variable.

**004**

Identify the mixture of powdered charcoal and powdered sugar and suggest a technique for separating their components.

1. homogeneous; dissolving followed by filtration and distillation
2. homogeneous; distillation
3. heterogeneous; decanting
4. heterogeneous; distillation
5. homogeneous; decanting

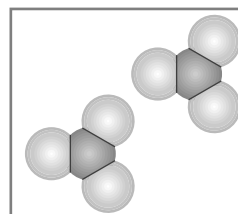
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**CIC T01 53**

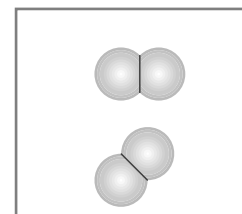
01:05, basic, multiple choice, < 1 min, fixed.

**005**

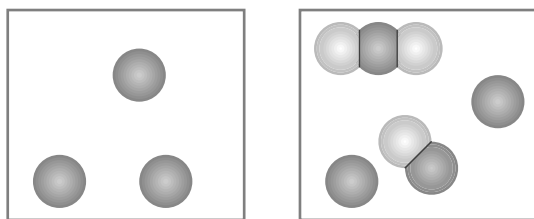
Which diagram(s)



**I**



**II**

**III****IV**

best represent(s) atoms?

1. I only
2. II only
3. III only
4. I and II only
5. II and III only
6. I and III only
7. II and IV only
8. IV only
9. Another combination

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**Mlib 00 7003**

01:05, general, multiple choice, > 1 min, fixed.

**006**

A homogeneous mixture is the equivalent of a

1. solution.
2. compound.
3. pure substance.
4. mixture with 2 or more phases.

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**Holt da 2 3 rev 4**

01:09, highSchool, numeric, < 1 min, wording-variable.

**007**

Keeping in mind the rules for significant figures, carry out the calculation

$$52.13 \text{ g} + 1.7502 \text{ g} .$$

1. 54 g
2. 53.9 g
3. 53.88 g
4. 53.880 g
5. 53.8802 g

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**008**

Keeping in mind the rules for significant figures, carry out the calculation

$$12.00 \text{ m} \times 6.4100 \text{ m} .$$

1. 77 m<sup>2</sup>
2. 76.9 m<sup>2</sup>
3. 76.92 m<sup>2</sup>
4. 76.920 m<sup>2</sup>
5. 76.9200 m<sup>2</sup>    ant figures, carry out the calculation

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**009**

Keeping in mind the rules for significant figures, carry out the calculation  $\frac{16.25 \text{ g}}{5.1442 \text{ mL}}$  .

1. 3.2 g/mL
2. 3.16 g/mL
3. 3.159 g/mL
4. 3.1589 g/mL
5. 3.15890 g/mL

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**Mlib 00 1547**

01:09, general, multiple choice, > 1 min, fixed.

**010**

Keeping in mind the rules for significant dig-

its, find  $0.00147 \times 8.314 \times 7.100$ .

1.  $8.68 \times 10^{-2}$
2.  $8.677 \times 10^{-2}$
3. 0.087
4.  $8.7 \times 10^2$

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**Holt da 2 1 sample 2**

01:13, highSchool, numeric, < 1 min, normal.

**011**

Find the volume of a sample of wood that has a mass of 95.1 g and a density of  $0.857 \text{ g/cm}^3$ . Answer in units of  $\text{cm}^3$ .

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**Mlib 00 4003**

01:13, general, multiple choice, > 1 min, fixed.

**012**

A graduated cylinder contains 20.0 mL of water. An irregularly shaped object is placed in the cylinder and the water level rises to the 31.2 mL mark. If the object has a mass of 47.9 g, what is its density?

1.  $4.28 \text{ g/cm}^3$
2. 1.53 g/mL
3. 2.40 g/mL
4.  $2.34 \text{ g/cm}^3$

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**Sparks155 alg**

01:12, basic, multiple choice, < 1 min, wording-variable.

**013**

Convert  $0.00045 \text{ Mm}$  to millimeters.

1.  $4.5 \times 10^{-13} \text{ mm}$
2. 450000 mm
3.  $4.5 \times 10^{-10} \text{ mm}$
4. 450 mm

5. 45 mm
6. 450000000 mm
7.  $4.5 \times 10^{-7} \text{ mm}$
8. 4500 mm

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**Sparks156 alg**

01:12, general, multiple choice, < 1 min, wording-variable.

**014**

Convert  $5.8 \times 10^6$  centigrams to kilograms.

1. 0.0058 kg
2.  $5.8 \times 10^{15} \text{ kg}$
3. 5.8 kg
4.  $5.8 \times 10^{12} \text{ kg}$
5. 58 kg
6.  $5.8 \times 10^{11} \text{ kg}$
7. 580000 kg
8.  $5.8 \times 10^7 \text{ kg}$

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**Msci 02 0217**

01:12, general, multiple choice, > 1 min, fixed.

**015**

0.0367 seconds is equal to how many milliseconds?

1. 36.7 msec
2. 0.0367 msec
3. 3.67 msec
4.  $3.67 \times 10^{-5} \text{ msec}$
5.  $3.67 \times 10^{-6} \text{ msec}$

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**Mlib 61 5057**

01:05, basic, multiple choice, > 1 min, fixed.

**016**

Which is not a mixture?

1. table salt
2. air
3. maple syrup
4. apple juice

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**Msci 01 1219**

01:13, general, multiple choice, &gt; 1 min, fixed.

**017**

Compare the densities of 1 liter of water with a bathtub-full of water. The density of 1 liter of water is

1. the same as for a bath-tub full.
2. less than for a bath-tub full.
3. greater than for a bath-tub full.