

## Chemistry: The Complete Course Additional Molarity Problems

1. There are \_\_\_\_\_ quantities in a molarity problem.  
a. 8    b. 3    c. 2
2. When you add water to a solution it \_\_\_\_\_.  
a. dilutes    b. concentrates    c. turns to ice
3. When you add water to HCl it changes the amount of HCl.  
a. true    b. false
4. Which of the following calculates how much HCl is needed to get 1 mole of HCl?  
a.  $(100 \text{ mol/L}) / (600 \text{ mol}) = .167 \text{ g}$     b.  $(100 \text{ mol}) / (600 \text{ L/mol}) = .167 \text{ mL}$     c.  $(100 \text{ mol}) / (600 \text{ mol/L}) = .167 \text{ L}$
5. When you dilute a solution with H<sub>2</sub>O it becomes \_\_\_\_\_.  
a. darker    b. lighter    c. cloudy
6. Assuming the volumes are additives, if you mix 200 mL of one solution and 100 mL of another you get \_\_\_\_\_.  
a. 300 mL    b. 20,000 mL    c. 100 mL
7. "This per that" and "amount" are examples of \_\_\_\_\_.  
a. distribution    b. quality    c. quantity
8. Which of the following would calculate molarity of a solution?  
a.  $M = d / v$     b.  $M = (\text{Total \# mol NaOH}) / (\text{Total vol solution})$     c.  $M = (\text{Total \# mol NaOH}) / (\text{Total solution density})$
9. Solve the following:  $V_T 350 \text{ mL} + 450 \text{ mL} =$  \_\_\_\_\_.  
a. 800 mL    b. 100 mL    c. 4,850 mL
10. If you mix a solution of 2.00 M and another of 2.00 M you get \_\_\_\_\_.  
a. the same molarity    b. a weaker concentration of molarity    c. a higher concentration of molarity



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### Answer Key

- |      |       |
|------|-------|
| 1. c | 6. a  |
| 2. a | 7. c  |
| 3. b | 8. b  |
| 4. c | 9. a  |
| 5. b | 10. a |

FOLD ON LINE,  
THEN DUPLICATE