

WS 09 Solutions**Due: 11:59pm on Wednesday, June 4, 2014**To understand how points are awarded, read the [Grading Policy](#) for this assignment.

Exercise 13.47

Ocean water contains 3.4% NaCl by mass.

Part A

How much salt can be obtained from 224g of seawater?

Express your answer using two significant figures.

ANSWER:

Correct

Exercise 13.55

Ocean water contains 3.0% NaCl by mass.

Part A

What mass of ocean water in grams contains 43.8g of NaCl?

Express your answer using two significant figures.

ANSWER:

Correct

Exercise 13.59

Calculate the molarity of each solution.

Part A

0.132mol of sucrose in 622mL of solution

Express your answer using three significant figures.

ANSWER:

Correct

Part B

0.225mol of KNO_3 in 0.895L of solution

Express your answer using three significant figures.

ANSWER:

Correct

Part C

1.9mol of KCl in 2.5L of solution

Express your answer using two significant figures.

ANSWER:

Correct

Exercise 13.63

A 215- mL sample of ocean water contains 7.1g of NaCl .

Part A

What is the molarity of the solution with respect to NaCl ?

Express your answer using two significant figures.

ANSWER:

Correct

Exercise 13.65

How many moles of NaCl are contained in each solution?

Part A

1.9L of a 1.7M NaCl solution

Express your answer using two significant figures.

ANSWER:

Correct

Part B

0.428L of a 0.95M NaCl solution

Express your answer using two significant figures.

ANSWER:

Correct

Part C

139mL of a 1.65M NaCl solution

Express your answer using three significant figures.

ANSWER:

Correct

Exercise 13.67

What volume of each solution contains 0.11mol of KCl?

Part A

0.258M KCl

Express your answer using two significant figures.

ANSWER:

0.43 L

Correct**Part B**

1.6M KCl

Express your answer using two significant figures.

ANSWER:

 6.9×10^{-2} L**Correct****Part C**

0.895M KCl

Express your answer using two significant figures.

ANSWER:

0.12 L

Correct**Exercise 13.72****Part A**Calculate the mass of glucose ($C_6H_{12}O_6$) in a 130mL sample of a 1.18M glucose solution.

ANSWER:

27.6 g

Correct

Exercise 13.81

A 134 mL sample of a 1.2M sucrose solution is diluted to 350mL .

Part A

What is the molarity of the diluted solution?

Express your answer using two significant figures.

ANSWER:

0.46 M

Correct

Exercise 13.83

Part A

Describe how you would make 8.5L of a 1.00M KCl solution from a 5.5M stock KCl solution.

Express your answer to two significant figures and include the appropriate units.

ANSWER:

You would dilute 1.5 L of the 5.5M stock solution to a final volume of 8.5L .

All attempts used; correct answer displayed

Exercise 13.84

Part A

Describe how you would make 300.0mL of a 0.800M NaOH solution from a 10.0M stock NaOH solution.

Express your answer with the appropriate units.

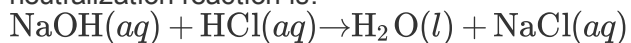
ANSWER:

Dilute 24.0 mL of the 10.0M stock solution to a final volume of 300.0mL .

Correct

Exercise 13.89

Determine the volume of 0.170M NaOH solution required to neutralize each sample of hydrochloric acid. The neutralization reaction is:



Part A

15mL of a 0.170M HCl solution

Express your answer using two significant figures.

ANSWER:

Correct

Part B

55mL of a 0.050M HCl solution

Express your answer using two significant figures.

ANSWER:

Correct

Part C

170mL of a 0.895M HCl solution

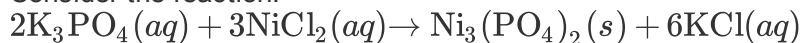
Express your answer using three significant figures.

ANSWER:

Correct

Exercise 13.91

Consider the reaction:



Part A

What volume of 0.205M K_3PO_4 solution is necessary to completely react with 142mL of 0.0112M NiCl_2 ?

ANSWER:

5.17×10^{-3} L

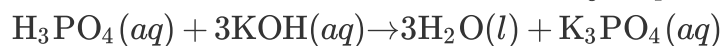
Correct

Exercise 13.93

A 11.0– mL sample of an unknown H_3PO_4 solution requires 106mL of 0.140M KOH to completely react with the H_3PO_4 .

Part A

What was the concentration of the unknown H_3PO_4 solution?



ANSWER:

0.450 M

All attempts used; correct answer displayed

Score Summary:

Your score on this assignment is 84.6%.

You received 11 out of a possible total of 13 points.