

**COMMERCE 293  
BONDS**

67.40

**Nutro Co.** issued \$6,000,000 face value (12%) 20 year bonds, dated April 1, 2007. Interest payment dates were October 1 and April 1. These bonds can be called (bought back) at any time. The entire bond issue was sold at a price to yield 14%. The corporate year end is December 31.

7

The corporation exercised its call provision on \$3,000,000 of the bonds at a price of 102.5 on April 1, 2012.

Use the present value tables that are on the front of vista.

**REQUIRED:**

Prepare the following journal entries. :

- a) Issue of bonds
- b) First semi-annual interest payment
- c) December 31, 2007, year-end adjusting entry
- d) Second semi-annual interest payment
- e) The exercise of the call provision by the company on April 1, 2012

### Assessment 5 - Bonds

Essex Prescott

Started: November 10, 2012 2:55 PM

Questions: 3

#### Instructions

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<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;">                 x attention             </div>	<p>Put a "0" instead of numbers and "-" instead of text in the spaces where no journal entries are required.</p> <p>All numbered answers to be written using commas (i.e. XX,XXX not XXXXX).</p>
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1. (Points: 30.0)

Prepare the following journal entries. Put an **x** in all blanks:

(a) Issue of bonds

2007		Debit	Credit
April 1	Cash	5,200,212	<del>x</del>
	Interest payable <i>int.</i>	<del>x</del>	<del>x</del>
	Bond payable	<del>x</del>	6,000,000
	Premium/Discount on Bond Payable	799,788	<del>x</del>
	Interest expense <i>int. exp.</i>	<del>x</del>	<del>x</del>

	Gain/Loss on Redemption of Bond	<del>✓</del>	<del>✓</del>
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**(b) First semi-annual interest payment. Round to the nearest cent.**

2007		Debit	Credit
Oct 1	Cash	<del>✓</del>	360,000.00
	Interest payable	<del>✓</del>	<del>✓</del>
	Bond payable	<del>✓</del>	<del>360,000.00</del>
	Premium/Discount on Bond Payable	<del>✓</del>	4,014.84
	Interest expense	364,014.84	<del>✓</del>
	Gain/Loss on Redemption of Bond	<del>✓</del>	<del>✓</del>

**(c) December 31, 2007, year end adjusting entry. Round to the nearest cent**

2007		Debit	Credit
Dec 31	Cash	<del>✓</del>	<del>✓</del>
	Interest payable	<del>✓</del>	184,000.00
	Bond payable	<del>✓</del>	0
	Premium/Discount on Bond Payable	<del>✓</del>	2,147.94
	Interest expense	182,147.94	<del>✓</del>
	Gain/Loss on Redemption of Bond	<del>✓</del>	<del>✓</del>

**(d) Second semi-annual interest payment. Round to the nearest cent.**

2008		Debit	Credit
April 1	Cash	X	360,000.00
	Interest payable	180,000.00	X
	Bond payable	X	X
	Premium/Discount on Bond Payable	X	2,147.94
	Interest expense	182,147.94	X
	Gain/Loss on Redemption of Bond	X	X

(e) The exercise of the call provision by the company on April 1, 2012. Round nearest cent.

2012		Debit	Credit
April 1	Cash	X	3,075,000.00
	Interest payable	X	X
	Bond payable	3,000,000.00	X
	Premium/Discount on Bond Payable	X	372,180.00
	Interest expense	X	X
	Gain/Loss on Redemption of Bond	447,180.00	X

**Assessment 5 - Bonds**

Essex Prescott

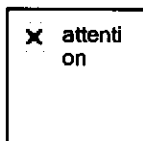
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**Instructions**

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Put a "0" instead of numbers and "-" instead of text in the spaces where no journal entries are required. All numbered answers to be written using commas (i.e. XX,XXX not XXXXX).

2. (Points: 5.0)

**Problem 3: selling price**

Calculate the selling price of the following semi-annual bond:

Coupon Rate	12%	
Yield Rate	5%	2.5
Face Value	\$365,431	
Term	12.5 years	25

Answer ~~601,102.72~~ 601,084.70

Save and View Next

Next Question

Finish

Help

**Assessment 5 - Bonds**

Essex Prescott

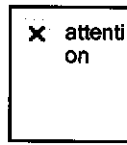
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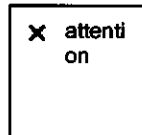
Put a "0" instead of numbers and "-" instead of text in the spaces where no journal entries are required. All numbered answers to be written using commas (i.e. XX,XXX not XXXXX).

**3.** (Points: 5.0)

**Problem 4: interest expense**

Calculate the interest expense that would be recorded for the first interest payment for the following semi-annual bond:

Coupon Rate	37%
Yield Rate	13%
Face Value	\$625,378
Term	12.5 years



You have now reached the end of this assessment. Please review your answers and click the FINISH button below.

Answer 100,148.81

Save and View Next

**Finish**

**Help**

# Assessment # 5

Coupon 12% Yield 14% 20 years semi-annual  
 $6,000,000 \times 0.0668 = 400,800$

4 periods  
 7%

$$360,000 \times 13.3317 = 4,799,412$$

$$6,000,000 \times 12\% \times \frac{1}{2} = 360,000 \quad 5,200,212 \text{ sales price}$$

6,000,000

799,788 Discount

## JE AT ISSUE

	CASH	5,200,212	
X Lab.	Discount	799,788	
	Bonds Payable		6,000,000

Oct. 1 Net Int. - Int Exp is always at market yield

$$\text{Exp. } 6,000,000 - 799,788 = 5,200,212 \times 14\% = 364,018 \quad 364,014.84$$

$$\text{Cash } 6,000,000 \times \frac{12\%}{2} = 360,000.00$$

	Int. Expense	364,014.84	
	Discount		4,014.84
	Cash		360,000

## AJE at 12/31

$$\text{Exp. Bond Int Exp } (5,200,212 + 4,014.84) \times 14\% \times \frac{3}{12} = 5,204,226.84 \times 14\% \times \frac{1}{4} =$$

$$\text{Cash Bond Payable } 6,000,000 \times 12\% \times \frac{3}{12} = 180,000$$

182,148.94

$$\text{Discount } 182,148 - 180,000 = 2,148.94$$

AFE 12/31/07

Int. Exp.	182,148.94	
Discount		2,148.94
Cash/Bond Int Payable		<del>360,000</del> 180,000

April 1/2008

Int. Exp.  $(5,200,000 \times 14\% \times \frac{1}{4}) - \text{what you received} = 182,148.94$   
 $364,295.88$  at year end

Cash  $6,000,000 \times 12\% \times \frac{1}{4} = 360,000$

Int. Payable  $180,000$

Int. Exp.	182,148.94	
Int. Payable	180,000	
Discount		2,148.94
Cash		360,000

CALL 4/1/2012

15 years left - 14% market 12% coupon

~~3,000,000~~  
~~6,000,000~~ @ 7% 30 periods (40-10 periods (5 year))  
~~180,000~~  
~~360,000~~ @ 7% 30 periods

~~3,000,000~~  
~~6,000,000~~  $\times 0.1314 = 788,400$  394,200  
~~180,000~~

~~360,000~~  $\times 12.4090 = 4,467,240$  2,233,620

~~5,250,000~~  $\times 0.6221207444 = 3,268,000$

~~3,000,000~~  
~~6,000,000~~  $\times 102.5 = 6,150,000$   
~~180,000~~

447,180 894,368

BONDS PAYABLE 3,000,000  
 LOSS 6,000,000  
 449,150  
 894,360

DISCOUNT 744,760 372,180  
 CASH 6,150,000 3,075,000  
 6,894,360 6,894,360

#2 365,431 : 12.5 years Coupon 12% Yield 5%  
 semiannual  
 $12.5 \times 2 = 25$

$365,431 \times 2.5\% \times 25 \text{ periods} = 197,113.48$   
 $21,925.86 \times 18.4244 = 403,989.87$   
 $365,431 \times 12\% = 43,851.72$   
 $43,851.72 \div 2 = 21,925.86$

$403,989.87 + 403,989.87 = 807,979.74$   
 $601,084.70$

#3. Coupon 37%  
 Yield 13% semiannual  
 Face \$625,378  
 Term 12.5 years

$$625,378 \times 6.5\% \times 25 \text{ periods} \times 0.2071 = 129,515.78$$

$$115,694.93 \times 12.1979 = 1,411,235.18$$

$$1,540,750.96$$

$$625,378$$

$$\times .37\%$$

$$\hline 231,389.86$$

$$\div 2$$

$$\hline 115,694.93$$

$$\times .13$$

$$200,297.62$$

$$\div 2$$

$$\hline 100,148.81$$