Prof. Aida R. Lozada Rivera, CPA, MBA, Ph.D.

aida.lozada@upr.edu

University of Puerto Rico Río Piedras Campus Business School



Facultad de Administración de Empresas Recinto de Río Piedras Fundada en 1926



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LIABILITIES:

DEFINITION

It is a present responsibility to sacrifice assets in the future because of a transaction or other event that happened in the past.

Characteristics

- > Are probable, future sacrifices (assets or benefits)
- Arise from present obligations
- Result from past transactions or events

This presentation contains information, in addition to the material prepared and provided by the professor, from:

- 1. Financial Accounting, David Spiceland, 6th Ed., McGraw-Hill
- 2. Intermediate Accounting, David Spiceland, 11th Ed., McGraw-Hill
- 3. Intermediate Accounting, Donald Kieso, 18th Ed., Wiley
- 4. Other: Official Websites

NON CURRENT LIABILITIES:

It takes more than one period to pay the full amount or **PRINCIPAL**

LIABILITIES:

ORIGIN

- 1. Loans, Borrowings, Notes, Bonds) (%)
- 2. Issue Bonds Payable
- 3. Leases
- 4. Pensions

LIABILITIES: CONTINGENT LIABILITIES

Accrued if = Record Journal Entry

- Probable
- Reasonable estimate
- Disclosure

> Journal Entry

Dr. Contingent Loss Cr. Contingent Liability

> Disclosure if

Reasonably Possible

ISSUING/SELLING A BOND

Ratings agencies research the financial health of each bond issuer (including issuers of municipal bonds) and assign ratings to the bonds being offered. Each agency has a similar hierarchy to help investors assess that bond's credit quality compared to other bonds. Bonds with a rating of BBB- (on the Standard & Poor's and Fitch scale) or Baa3 (on Moody's) or better are considered "investment-grade." Bonds with lower ratings are considered "speculative" and often referred to as "high-yield" or "junk" bonds. https://www.fidelity.com/learning-center/investment-products/fixed-income-bonds/bond-ratings

Investment grade	Moody's	Standard & Poor's	Fitch
Strongest	Aaa	AAA	AAA
	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
	A1	A+	A+
	A2	А	А
	A3	A-	A-
	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-

EXAMPLE:





ISSUED AT PAR VALUE

- Then: 1. Bond Price = Principal
- 2. Coupon Rate = Market Rate
- 3. Interest Expense = Cash Interest Payment

ISSUED AT PREMIUM

Then: 1. Bond Price > Principal

2. Coupon Rate > Market Rate

3. Interest Expense **≠** Cash Interest Payment

ISSUED AT DISCOUNT

Then:1. Bond Price < Principal</td>

2. Coupon Rate < Market Rate

3. Interest Expense **≠** Cash Interest Payment

P e	PRESENT VALUE OF ORDINARY ANNUITY (annuity in arrears end of period payments)																
r i					(ar	nnuity	in arre	ears -	- end	of per	iod pa	yment	ts)				
0 d								RATE	PER PE	RIOD							
s	0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%
1	0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286
2	1.99252	1.98510	1.97772	1.97040	1.95588	1.94156	1.92742	1.91347	1.88609	1.85941	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005
3	2.98506	2.97025	2.95556	2.94099	2.91220	2.88388	2.85602	2.82861	2.77509	2.72325	2.67301	2.62432	2.57710	2.53129	2.48685	2.44371	2.40183
4	3.97512	3.95050	3.92611	3.90197	3.85438	3.80773	3.76197	3.71710	3.62990	3.54595	3.46511	3.38721	3.31213	3.23972	3.16987	3.10245	3.03735
5	4.96272	4.92587	4.88944	4.85343	4.78264	4.71346	4.64583	4.57971	4.45182	4.32948	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478
6	5.94785	5.89638	5.84560	5.79548	5.69719	5.60143	5.50813	5.41719	5.24214	5.07569	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.11141
7	6.93052	6.86207	6.79464	6.72819	6.59821	6.47199	6.34939	6.23028	6.00205	5.78637	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376
8	7.91074	7.82296	7.73661	7.65168	7.48593	7.32548	7.17014	7.01969	6.73274	6.46321	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764
9	8.88852	8.77906	8.67158	8.56602	8.36052	8.16224	7.97087	7.78611	7.43533	7.10782	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825
10	9.86386	9.73041	9.59958	9.47130	9.22218	8.98259	8.75206	8.53020	8.11090	7.72173	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022
11	10.83677	10.67703	10.52067	10.36763	10.07112	9.78685	9.51421	9.25262	8.76048	8.30641	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770
12	11.80725	11.61893	11.43491	11.25508	10.90751	10.57534	10.25776	9.95400	9.38507	8.86325	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437
13	12.77532	12.55615	12.34235	12.13374	11.73153	11.34837	10.98318	10.63496	9.98565	9.39357	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355
14	13.74096	13.48871	13.24302	13.00370	12.54338	12.10625	11.69091	11.29607	10.56312	9.89864	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817
15	14.70420	14.41662	14.13699	13.86505	13.34323	12.84926	12.38138	11.93794	11.11839	10.37966	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086
16	15.66504	15.33993	15.02431	14.71787	14.13126	13.57771	13.05500	12.56110	11.65230	10.83777	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399
17	16.62348	16.25863	15.90502	15.56225	14.90765	14.29187	13.71220	13.16612	12.16567	11.27407	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963
18	17.57953	17.17277	16.77918	16.39827	15.67256	14.99203	14.35336	13.75351	12.65930	11.68959	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967
19	18.53320	18.08236	17.64683	17.22601	16.42617	15.67846	14.97889	14.32380	13.13394	12.08532	11.15812	10.33560	9.60360	8.95011	8.36492	7.83929	7.36578
20	19.48449	18.98742	18.50802	18.04555	17.16864	16.35143	15.58916	14.87747	13.59033	12.46221	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944
21	20.43340	19.88798	19.36280	18.85698	17.90014	17.01121	16.18455	15.41502	14.02916	12.82115	11.76408	10.83553	10.01680	9.29224	8.64869	8.07507	7.56200
22	21.37995	20.78406	20.21121	19.66038	18.62082	17.65805	16.76541	15.93692	14.45112	13.16300	12.04158	11.06124	10.20074	9.44243	8.77154	8.17574	7.64465
23	22.32414	21.67568	21.05331	20.45582	19.33086	18.29220	17.33211	16.44361	14.85684	13.48857	12.30338	11.27219	10.37106	9.58021	8.88322	8.26643	7.71843
24	23.26598	22.56287	21.88915	21.24339	20.03041	18.91393	17.88499	16.93554	15.24696	13.79864	12.55036	11.46933	10.52876	9.70661	8.98474	8.34814	7.78432
25	24.20547	23.44564	22.71876	22.02316	20.71961	19.52346	18.42438	17.41315	15.62208	14.09394	12.78336	11.65358	10.67478	9.82258	9.07704	8.42174	7.84314
30	28.86787	27.79405	26.77508	25.80771	24.01584	22.39646	20.93029	19.60044	17.29203	15.37245	13.76483	12.40904	11.25778	10.27365	9.42691	8.69379	8.05518
35	33.47243	32.03537	30.68266	29.40858	27.07559	24.99862	23.14516	21.48722	18.66461	16.37419	14.49825	12.94767	11.65457	10.56682	9.64416	8.85524	8.17550
40	38.01986	36.17223	34.44694	32.83469	29.91585	27.35548	25.10278	23.11477	19.79277	17.15909	15.04630	13.33171	11.92461	10.75736	9.77905	8.95105	8.24378
50	46.94617	44.14279	41.56645	39.19612	34.99969	31.42361	28.36231	25.72976	21.48218	18.25593	15.76186	13.80075	12.23348	10.96168	9.91481	9.04165	8.30450

	P e r i							PRE	SEN		UE OF	⁼ \$1						
	o d								RATE	PER PE	RIOD							
	s	0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%
Γ	1	0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286
	2	0.99502	0.99007	0.98517	0.98030	0.97066	0.96117	0.95181	0.94260	0.92456	0.90703	0.89000	0.87344	0.85734	0.84168	0.82645	0.81162	0.79719
	3	0.99254	0.98515	0.97783	0.97059	0.95632	0.94232	0.92860	0.91514	0.88900	0.86384	0.83962	0.81630	0.79383	0.77218	0.75131	0.73119	0.71178
	4	0.99006	0.98025	0.97055	0.96098	0.94218	0.92385	0.90595	0.88849	0.85480	0.82270	0.79209	0.76290	0.73503	0.70843	0.68301	0.65873	0.63552
	5	0.98759	0.97537	0.96333	0.95147	0.92826	0.90573	0.88385	0.86261	0.82193	0.78353	0.74726	0.71299	0.68058	0.64993	0.62092	0.59345	0.56743
	6	0.98513	0.97052	0.95616	0.94205	0.91454	0.88797	0.86230	0.83748	0.79031	0.74622	0.70496	0.66634	0.63017	0.59627	0.56447	0.53464	0.50663
	7	0.98267	0.96569	0.94904	0.93272	0.90103	0.87056	0.84127	0.81309	0.75992	0.71068	0.66506	0.62275	0.58349	0.54703	0.51316	0.48166	0.45235
	8	0.98022	0.96089	0.94198	0.92348	0.88771	0.85349	0.82075	0.78941	0.73069	0.67684	0.62741	0.58201	0.54027	0.50187	0.46651	0.43393	0.40388
	9	0.97778	0.95610	0.93496	0.91434	0.87459	0.83676	0.80073	0.76642	0.70259	0.64461	0.59190	0.54393	0.50025	0.46043	0.42410	0.39092	0.36061
	10	0.97534	0.95135	0.92800	0.90529	0.86167	0.82035	0.78120	0.74409	0.67556	0.61391	0.55839	0.50835	0.46319	0.42241	0.38554	0.35218	0.32197
	11	0.97291	0.94661	0.92109	0.89632	0.84893	0.80426	0.76214	0.72242	0.64958	0.58468	0.52679	0.47509	0.42888	0.38753	0.35049	0.31728	0.28748
	12	0.97048	0.94191	0.91424	0.88745	0.83639	0.78849	0.74356	0.70138	0.62460	0.55684	0.49697	0.44401	0.39711	0.35553	0.31863	0.28584	0.25668
	13	0.96806	0.93722	0.90743	0.87866	0.82403	0.77303	0.72542	0.68095	0.60057	0.53032	0.46884	0.41496	0.36770	0.32618	0.28966	0.25751	0.22917
	14	0.96565	0.93256	0.90068	0.86996	0.81185	0.75788	0.70773	0.66112	0.57748	0.50507	0.44230	0.38782	0.34046	0.29925	0.26333	0.23199	0.20462
	15	0.96324	0.92792	0.89397	0.86135	0.79985	0.74301	0.69047	0.64186	0.55526	0.48102	0.41727	0.36245	0.31524	0.27454	0.23939	0.20900	0.18270
	16	0.96084	0.92330	0.88732	0.85282	0.78803	0.72845	0.67362	0.62317	0.53391	0.45811	0.39365	0.33873	0.29189	0.25187	0.21763	0.18829	0.16312
	17	0.95844	0.91871	0.88071	0.84438	0.77639	0.71416	0.65720	0.60502	0.51337	0.43630	0.37136	0.31657	0.27027	0.23107	0.19784	0.16963	0.14564
	18	0.95605	0.91414	0.87416	0.83602	0.76491	0.70016	0.64117	0.58739	0.49363	0.41552	0.35034	0.29586	0.25025	0.21199	0.17986	0.15282	0.13004
	19	0.95367	0.90959	0.86765	0.82774	0.75361	0.68643	0.62553	0.57029	0.47464	0.39573	0.33051	0.27651	0.23171	0.19449	0.16351	0.13768	0.11611
	20	0.95129	0.90506	0.86119	0.81954	0.74247	0.67297	0.61027	0.55368	0.45639	0.37689	0.31180	0.25842	0.21455	0.17843	0.14864	0.12403	0.10367
	21	0.94892	0.90056	0.85478	0.81143	0.73150	0.65978	0.59539	0.53755	0.43883	0.35894	0.29416	0.24151	0.19866	0.16370	0.13513	0.11174	0.09256
	22	0.94655	0.89608	0.84842	0.80340	0.72069	0.64684	0.58086	0.52189	0.42196	0.34185	0.27751	0.22571	0.18394	0.15018	0.12285	0.10067	0.08264
	23	0.94419	0.89162	0.84210	0.79544	0.71004	0.63416	0.56670	0.50669	0.40573	0.32557	0.26180	0.21095	0.17032	0.13778	0.11168	0.09069	0.07379
	24	0.94184	0.88719	0.83583	0.78757	0.69954	0.62172	0.55288	0.49193	0.39012	0.31007	0.24698	0.19715	0.15770	0.12640	0.10153	0.08170	0.06588
	25	0.93949	0.88277	0.82961	0.77977	0.68921	0.60953	0.53939	0.47761	0.37512	0.29530	0.23300	0.18425	0.14602	0.11597	0.09230	0.07361	0.05882
	30	0.92783	0.86103	0.79919	0.74192	0.63976	0.55207	0.47674	0.41199	0.30832	0.23138	0.17411	0.13137	0.09938	0.07537	0.05731	0.04368	0.03338
	35	0.91632	0.83982	0.76988	0.70591	0.59387	0.50003	0.42137	0.35538	0.25342	0.18129	0.13011	0.09366	0.06763	0.04899	0.03558	0.02592	0.01894
	40	0.90495	0.81914	0.74165	0.67165	0.55126	0.45289	0.37243	0.30656	0.20829	0.14205	0.09722	0.06678	0.04603	0.03184	0.02209	0.01538	0.01075
	50	0.88263	0.77929	0.68825	0.60804	0.47500	0.37153	0.29094	0.22811	0.14071	0.08720	0.05429	0.03395	0.02132	0.01345	0.00852	0.00542	0.00346

PAR COUPON RATE: 6%

MARKET RATE: 6%

BOND PRICE	
PV of Interest Cash Payments	\$206,527
\$42,000 x 4.91732	
Table: ordinary annuity ($n=6$, $i=6\%$)	
PV of Principal	
\$700,000 x 0.70496	\$493,473
Table: PV of \$1 (n=6, i=6%)	
	\$700,000

P e		PRESENT VALUE OF ORDINARY ANNUITY (annuity in arrears end of period payments)															e							PRE	SENT	VALU	JE OF	\$1							
r i					(ar	nuity	in arre	ears -	- end	of peri	iod pa	yment	ts)																13						
0								RATE	PER PE	RIOD								0								RATE	PER PE	RIOD							
s	0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%		0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%
1	0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286		0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286
2	1.99252	1.98510	1.97772	1.97040	1.95588	1.94156	1.92742	1.91347	1.88609	1.85941	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005		0.99502	0.99007	0.98517	0.98030	0.97066	0.96117	0.95181	0.94260	0.92456	0.90703	0.89000	0.87344	0.85734	0.84168	0.82645	0.81162	0.79719
3	2.98506	2.97025	2.95556	2.94099	2.91220	2.88388	2.85602	2.82861	2.77509	2.72325	2.67301	2.62432	2.57710	2.53129	2.48685	2.44371	2.40183		0.99254	0.98515	0.97783	0.97059	0.95632	0.94232	0.92860	0.91514	0.88900	0.86384	0.83962	0.81630	0.79383	0.77218	0.75131	0.73119	0.71178
4	3.97512	3.95050	3.92611	3.90197	3.85438	3.80773	3.76197	3.71710	3.62990	3.54595	3.46511	3.38721	3.31213	3.23972	3.16987	3.10245	3.03735		0.99006	0.98025	0.97055	0.96098	0.94218	0.92385	0.90595	0.88849	0.85480	0.82270	0.79209	0.76290	0.73503	0.70843	0.68301	0.65873	0.63552
5	4.96272	4.92587	4.88944	4.85343	4.78264	4.71346	4.64583	4.57971	4.45182	4.32948	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478		0.98759	0.97537	0.96333	0.95147	0.92826	0.90573	0.88385	0.86261	0.82193	0.78353	0.74726	0.71299	0.68058	0.64993	0.62092	0.59345	0.56743
6	5.94785	5.89638	5.84560	5.79548	5.69719	5.60143	5.50813	5.41719	5.24214	5.07569	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.11141		0.98513	0.97052	0.95616	0.94205	0.91454	0.88797	0.86230	0.83748	0.79031	0.74622	0.70496	0.66634	0.63017	0.59627	0.56447	0.53464	0.50663
7	6.93052	6.86207	6.79464	6.72819	6.59821	6.47199	6.34939	6.23028	6.00205	5.78637	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376		0.98267	0.96569	0.94904	0.93272	0.90103	0.87056	0.84127	0.81309	0.75992	0.71068	0.66506	0.62275	0.58349	0.54703	0.51316	0.48166	0.45235
8	7.91074	7.82296	7.73661	7.65168	7.48593	7.32548	7.17014	7.01969	6.73274	6.46321	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764		0.98022	0.96089	0.94198	0.92348	0.88771	0.85349	0.82075	0.78941	0.73069	0.67684	0.62/41	0.58201	0.54027	0.50187	0.46651	0.43393	0.40388
9	8.88852	8.77906	8.67158	8.56602	8.36052	8.16224	7.97087	7.78611	7.43533	7.10782	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825		0.97778	0.95610	0.93496	0.91434	0.87459	0.83676	0.80073	0.76642	0.70259	0.64461	0.59190	0.54393	0.50025	0.46043	0.42410	0.39092	0.36061
10	9.86386	9.73041	9.59958	9.47130	9.22218	8.98259	8.75206	8.53020	8.11090	7.72173	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022		0.97534	0.95135	0.92000	0.90529	0.00107	0.02035	0.70120	0.74409	0.07000	0.01391	0.55639	0.50635	0.40019	0.92752	0.30334	0.35210	0.32197
11	10.83677	10.67703	10.52067	10.36763	10.07112	9.78685	9.51421	9.25262	8.76048	8.30641	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770		0.97291	0.94001	0.92109	0.09032	0.04093	0.70940	0.76214	0.72242	0.04950	0.56694	0.52679	0.47509	0.90744	0.30/53	0.35049	0.31720	0.20740
12	11.80725	11.61893	11.43491	11.25508	10.90751	10.57534	10.25776	9.95400	9.38507	8.86325	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437		0.97040	0.02722	0.01424	0.00745	0.03039	0.70049	0.72542	0.70130	0.60057	0.53004	0.49097	0.41406	0.39711	0.355555	0.31003	0.20304	0.23000
13	12.77532	12.55615	12.34235	12.13374	11.73153	11.34837	10.98318	10.63496	9.98565	9.39357	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355		0.90000	0.93722	0.90745	0.07000	0.02403	0.75799	0.72342	0.66112	0.57749	0.53032	0.40004	0.20702	0.30770	0.32010	0.20300	0.22100	0.22917
14	13.74096	13.48871	13.24302	13.00370	12.54338	12.10625	11.69091	11.29607	10.56312	9.89864	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817		0.90303	0.93230	0.90000	0.00550	0.01105	0.74201	0.0017	0.64196	0.57740	0.49102	0.44230	0.36762	0.34040	0.23323	0.20000	0.20100	0.19270
15	14.70420	14.41662	14.13699	13.86505	13.34323	12.84926	12.38138	11.93794	11.11839	10.37966	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086		0.00024	0.02330	0.88732	0.85282	0.78803	0.72845	0.67362	0.62317	0.53301	0.45811	0.39365	0.33873	0.20180	0.25187	0.21763	0.18820	0.16312
16	15.66504	15.33993	15.02431	14.71787	14.13126	13.57771	13.05500	12.56110	11.65230	10.83777	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399		7 0.95844	0.92330	0.88071	0.84438	0.77630	0.71416	0.65720	0.60502	0.53337	0.43630	0.37136	0.31657	0.27027	0.23107	0.19784	0.16963	0.14564
17	16.62348	16.25863	15.90502	15.56225	14.90765	14.29187	13.71220	13.16612	12.16567	11.27407	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963	1	0.95605	0.91414	0.87416	0.83602	0.76491	0.70016	0.64117	0.58739	0.49363	0.41552	0.35034	0.29586	0.25025	0.21199	0.17986	0.15282	0.13004
18	17.57953	17.17277	16.77918	16.39827	15.67256	14.99203	14.35336	13.75351	12.65930	11.68959	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967	1	0.95367	0.90959	0.86765	0.82774	0.75361	0.68643	0.62553	0.57029	0.47464	0.39573	0.33051	0.27651	0.23171	0 19449	0.16351	0.13768	0.11611
19	18.53320	18.08236	17.64683	17.22601	16.42617	15.67846	14.97889	14.32380	13.13394	12.08532	11.15812	10.33560	9.60360	8.95011	8.36492	7.83929	7.36578	2	0.95129	0.90506	0.86119	0.81954	0 74247	0.67297	0.61027	0.55368	0.45639	0.37689	0.31180	0.25842	0.21455	0 17843	0.14864	0.12403	0 10367
20	19.48449	18.98742	18.50802	18.04555	17.16864	16.35143	15.58916	14.87747	13.59033	12.46221	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944	2	0.94892	0.90056	0.85478	0.81143	0.73150	0.65978	0.59539	0.53755	0.43883	0.35894	0.29416	0 24151	0 19866	0 16370	0 13513	0 11174	0.09256
21	20.43340	19.88798	19.36280	18.85698	17.90014	17.01121	16.18455	15.41502	14.02916	12.82115	11.76408	10.83553	10.01680	9.29224	8.64869	8.07507	7.56200	2	0 94655	0.89608	0.84842	0.80340	0.72069	0.64684	0.58086	0.52189	0.42196	0.34185	0 27751	0.22571	0.18394	0.15018	0.12285	0.10067	0.08264
22	21.37995	20.78406	20.21121	19.66038	18.62082	17.65805	16.76541	15.93692	14.45112	13.16300	12.04158	11.06124	10.20074	9.44243	8.77154	8.17574	7.64465	2	0.94419	0.89162	0.84210	0 79544	0.71004	0.63416	0.56670	0.50669	0 40573	0.32557	0 26180	0.21095	0 17032	0 13778	0.11168	0.09069	0.07379
23	22.32414	21.67568	21.05331	20.45582	19.33086	18.29220	17.33211	16.44361	14.85684	13.48857	12.30338	11.27219	10.37106	9.58021	8.88322	8.26643	7.71843	2	4 0.94184	0.88719	0.83583	0.78757	0.69954	0.62172	0.55288	0.49193	0.39012	0.31007	0.24698	0.19715	0.15770	0.12640	0.10153	0.08170	0.06588
24	23.26598	22.56287	21.88915	21.24339	20.03041	18.91393	17.88499	16.93554	15.24696	13.79864	12.55036	11.46933	10.52876	9.70661	8.98474	8.34814	7.78432	2	5 0.93949	0.88277	0.82961	0.77977	0.68921	0.60953	0.53939	0.47761	0.37512	0.29530	0.23300	0.18425	0.14602	0.11597	0.09230	0.07361	0.05882
25	24.20547	23.44564	22.71876	22.02316	20.71961	19.52346	18.42438	17.41315	15.62208	14.09394	12.78336	11.65358	10.67478	9.82258	9.07704	8.42174	7.84314	3	0.92783	0.86103	0.79919	0.74192	0.63976	0.55207	0.47674	0.41199	0.30832	0.23138	0.17411	0.13137	0.09938	0.07537	0.05731	0.04368	0.03338
30	28.86787	27.79405	26.77508	25.80771	24.01584	22.39646	20.93029	19.60044	17.29203	15.37245	13.76483	12.40904	11.25778	10.27365	9.42691	8.69379	8.05518	3	0.91632	0.83982	0.76988	0.70591	0.59387	0.50003	0.42137	0.35538	0.25342	0.18129	0.13011	0.09366	0.06763	0.04899	0.03558	0.02592	0.01894
35	33.47243	32.03537	30.68266	29.40858	27.07559	24.99862	23.14516	21.48722	18.66461	16.37419	14.49825	12.94767	11.65457	10.56682	9.64416	8.85524	8.17550	4	0.90495	0.81914	0.74165	0.67165	0.55126	0.45289	0.37243	0.30656	0.20829	0.14205	0.09722	0.06678	0.04603	0.03184	0.02209	0.01538	0.01075
40	38.01986	36.17223	34.44694	32.83469	29.91585	27.35548	25.10278	23.11477	19.79277	17.15909	15.04630	13.33171	11.92461	10.75736	9.77905	8.95105	8.24378	5	0.88263	0.77929	0.68825	0.60804	0.47500	0.37153	0.29094	0.22811	0.14071	0.08720	0.05429	0.03395	0.02132	0.01345	0.00852	0.00542	0.00346
50	46.94617	44.14279	41.56645	39.19612	34.99969	31.42361	28.36231	25.72976	21.48218	18.25593	15.76186	13.80075	12.23348	10.96168	9.91481	9.04165	8.30450																16		

		Α	В	С	D	E
		Date	Cash	Effective	Decrease in	Outstanding
ΡΛΡ			Interest / Payment	Interest	Balance	Balance
COUPON RATE	₹• 6%		6%	6%		Carrying Value
	 . . .					
			Principal x Coupon Rate	(E x C)	(B - C)	(E - D)
MARKETRATE	1:6%	1/1/Y1				\$700,000
		6/30/Y1	42,000	42,000 (700,000 X .06)	0	700,000
		12/31/Y1	42,000	42,000 (700,000 X .06)	0	700,000
		6/30/Y2	42,000	42,000 (700,000 X .06)	0	700,000
BOND PRICE		- 12/31/Y2	42,000	42,000 (700,000 X .06)	0	700,000
PV of Interest Cash Payments	\$206,527	6/30/Y3	42,000	42,000 (700,000 X .06)	0	700,000
\$42,000 x 4.91732		12/31/Y3	42,000	42,000 (700,000 X .06)	0	700,000
Table: ordinary annuity (n=6, i= 6%)		_	252,000	216,467	0	
\$700,000 x 0.70496	\$493,473	_		, , , , , , , , , , , , , , , , , , , ,		
Table: PV of \$1 (n=6, i= 6%)			COUPON RATE			
	\$700,000		Semi annual: 42,000/700,000 = 6.%			
			Annual: 84,000/700.000 = 12%			
			FFECTIVE/ MARKET INTEREST RATE			
			Semi annual: 42,000/700,000 = 6.%			
			Annual: $84.000/700\ 000 = 12\%$			

PAR COUPON RATE: 6%

MARKET RATE: 6%

BOND PRICE	
PV of Interest Cash Payments	\$206,527
\$42,000 x 4.91732	
Table: ordinary annuity (n=6, i= 6%)	
PV of Principal	
\$700,000 x 0.70496	\$493,473
Table: PV of \$1 (n=6, i= 6%)	
	\$700,000

1/1/Y1Image: style styl		J	DURNAL F	ENTRIES								
Dr. Cash700,000Image: Normal Strategy Str	1/1/	Y1		12/31	Y3							
Cr. Bonds PayableImage: Mark Mark Mark Mark Mark Mark Mark Mark	Dr. Cash	700,000		Dr. Bonds Payable	700,000							
To record bond issueImage: state of the stat	Cr. Bonds Payable		700,000	Cr. Cash		700,000						
To record bond issueTo record bond principal payment6/30/Y1Image: state s												
6/30/Y1image: style st	To record b	ond issue	To record bond principal payment									
6/30/Y1 $6/30/Y3$ $6/30/Y3$ Dr. Interest Expense $42,000$ Dr. Interest Expense $42,000$ Cr. Cash $42,000$ Cr. Cash $42,000$ To record interest paymentTo record interest payment $70 record interest payment$ $12/31/Y1$ $12/31/Y3$ $12/31/Y3$ Dr. Interest Expense $42,000$ Dr. Interest Expense $42,000$ Cr. Cash $42,000$ Dr. Interest Expense $42,000$ Cr. Cash $42,000$ Cr. Cash $42,000$ To record interest paymentTo record interest payment $70 record interest payment$ To record interest payment $70 record interest payment$ $70 record interest payment$ $6/30/Y2$ $10 record interest payment$ $10 record interest payment$ Dr. Interest Expense $42,000$ $10 record interest payment$ $70 record interest payment$ $10 record interest payment$ $10 record interest payment$ $12/31/Y2$ $10 record interest payment$ $10 record interest payment$ $12/31/Y2$ $10 record interest payment$ $10 record interest payment$												
Dr. Interest Expense42,000Dr. Interest Expense42,000Cr. Cash $42,000$ Cr. Cash $42,000$ To record interest pymentTo record interest paymentTo record interest payment12/31/Y1 1 1 1 Dr. Interest Expense $42,000$ Dr. Interest Expense $42,000$ Cr. Cash $12/31/Y3$ 1 $12/31/Y3$ 1 Dr. Interest Expense $42,000$ Dr. Interest Expense $42,000$ Cr. Cash $42,000$ Cr. Cash $42,000$ To record interest pyment 1 1 1 $6/30/Y2$ 1 1 1 Dr. Interest Expense $42,000$ 1 1 Dr. Interest Expense $42,000$ 1 2 1 1 1 1 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 <td< td=""><td>6/30/Y1</td><td></td><td></td><td>6/30/Y3</td><td></td><td></td></td<>	6/30/Y1			6/30/Y3								
Cr. Cash42,000Cr. Cash42,000To record interest paymentTo record interest paymentTo record interest payment12/31/Y1I11Dr. Interest Expense42,000Dr. Interest Expense42,000Cr. Cash42,000Cr. Cash42,000Cr. Cash42,000Cr. Cash42,000To record interest paymentTo record interest payment42,000To record interest paymentIIImage: Comparison of the paymentImage: Comparison of the	Dr. Interest Expense	42,000		Dr. Interest Expense	42,000							
To record interest paymentTo record interest paymentImage: Image: I	Cr. Cash		42,000 Cr. Cash									
12/31/Y1Image: style in the sty	To record inter	rest payment		To record inter	rest payment							
Dr. Interest Expense42,000Dr. Interest Expense42,000Cr. Cash $42,000$ Cr. Cash $42,000$ To record interest paymentTo record interest payment6/30/Y2 1 1 1 6/30/Y2 1 1 1 Dr. Interest Expense $42,000$ 1 1 Dr. Interest Expense $42,000$ 1 1 Cr. Cash 1 $42,000$ 1 1 Dr. Interest Expense $42,000$ 1 1 1 Dr. Interest Expense $42,000$ 1 1 1 Dr. Interest Expense $42,000$ 1 <t< td=""><td>12/31/Y1</td><td></td><td></td><td>12/31/Y3</td><td></td><td></td></t<>	12/31/Y1			12/31/Y3								
Cr. Cash42,000Cr. Cash42,000To record interest paymentTo record interest payment42,000 $6/30/Y2$ Image: Construction of the second of t	Dr. Interest Expense	42,000		Dr. Interest Expense	42,000							
To record interest paymentTo record interest payment6/30/Y2Image: Second	Cr. Cash		42,000	Cr. Cash		42,000						
6/30/Y2Image: Constraint of the second secon	To record inter	rest payment		To record inter	rest payment							
Dr. Interest Expense 42,000 Image: Construct on the set of t	6/30/Y2											
Cr. Cash 42,000 Image: Cr. Cash 42,000 Image: Cr. Cash	Dr. Interest Expense	42,000										
To record interest payment 12/31/Y2 12/000	Cr. Cash		42,000									
12/31/Y2 12 000	To record inter	rest payment										
	12/31/Y2											
Dr. Interest Expense 42,000	Dr. Interest Expense	42,000										
Cr. Cash 42,000	Cr. Cash		42,000									
To record interest payment	To record inter	rest payment				17						

BOND PRICE	
PV of Interest Cash Payments	\$206,527
\$42,000 x 4.91732	
Table: ordinary annuity (n=6, i=6%)	
PV of Principal	
\$700,000 x 0.70496	\$493,473
Table: PV of \$1 (n=6, i= 6%)	
	\$700,000

700,000

42,000

42,000

В	С	D	E		J	DURNAL E	ENTRIES	
Cash	Effective	Decrease in	Outstanding	1/1/	Y1		12/31	Y3
Interest / Devment	Interact	Delence	Dalanaa	Dr. Cash	700,000		Dr. Bonds Payable	700,000
Interest / Payment	Interest	Dalalice	Datatice	Cr. Bonds Payable		700,000	Cr. Cash	700
6%	6%		Carrying Value					
				To record b	ond issue		To record bond pr	incipal payment
Principal x Coupon Rate	(E x C)	(B - C)	(E - D)	C 120 1871			(120/13/2	
			\$700,000	0/30/Y1 Dr. Interest Expense	42 000		0/30/13 Dr. Interest Expense	42 000
42,000	42,000 (700,000 X .06)	0	700,000	Cr. Cash	42,000	42,000	Cr. Cash	42,000
42,000	42,000 (700,000 X .06)	0	700,000	To record inte	rest payment		To record inter	rest payment
42,000	42,000 (700,000 X .06)	0	700,000				40/04/570	
42,000	42,000 (700,000 X .06)	0	700,000	12/31/Y1	42,000		12/31/Y3	42,000
42,000	42,000 (700,000 X .06)	0	700,000	Cr Cash	42,000	42,000	Cr. Cash	42,000
42,000	42,000 (700,000 X .06)	0	700,000	To record inte	rest payment	,	To record inter	rest payment
252,000	216,467	0						
				6/30/Y2				
				Dr. Interest Expense	42,000			
COUPON RATE				Cr. Cash		42,000		
Semi annual: 42,000/700,000 = 6.%				To record inte	rest payment			
Annual: 84,000/700,000 = 12%				10/01/570				
FFECTIVE/ MARKET INTEREST RATE				12/31/YZ Dr. Interest Expense	42 000			
Semi annual: 42,000/700,000 = 6.%				Cr. Cash	42,000	42,000		
Annual: 84,000/700,000 = 12%				To record inte	rest payment			18
	B Cash Interest / Payment 6% Principal x Coupon Rate 42,000 42,000 42,000 42,000 42,000 42,000 42,000 42,000 42,000 42,000 42,000 42,000 42,000 522,000 COUPON RATE Semi annual: 42,000/700,000 = 6.% Annual: 84,000/700,000 = 12% FFECTIVE/ MARKET INTEREST RATE Semi annual: 42,000/700,000 = 6.% Annual: 84,000/700,000 = 12%	B C Cash Effective Interest / Payment Interest 6% 6% Principal x Coupon Rate (E x C) 42,000 42,000 (700,000 x .06) 252,000 216,467 Semi annual: 42,000/700,000 = 6.% Annual: 84,000/700,000 = 12% FFECTIVE/ MARKET INTEREST RATE Semi annual: 42,000/700,000 = 6.% Annual: 84,000/700,000 = 12% Annual: 84,000/700,000 = 12%	B C D Cash Effective Decrease in Interest / Payment Interest Balance 6% 6% 6% Principal x Coupon Rate (E x C) (B - C) 42,000 42,000 (700,000 X .06) 0 252,000 216,467 0 COUPON RATE E E Semi annual: 84,000/700,000 = 12% E E FFECTIVE/ MARKET INTEREST RATE E E Semi annual: 84,000/700,000 = 6.% Annual: 84,000/700,000 = 12%	B C D E Cash Effective Decrease in Outstanding Interest / Payment Interest Balance Balance 6% 6% Carrying Value 6% 6% Carrying Value Principal x Coupon Rate (E x C) (B - C) (E - D) 42,000 42,000 (700,000 x .06) 0 700,000 5000 216,467 0 1	B C D E Cash Effective Decrease in Outstanding Interest / Payment Interest Balance Balance Cr. Bonds Payable 6% 6% Carrying Value To record to the second	B C D E Cash Effective Decrease in Outstanding Interest / Payment Interest Balance Balance Carrying Value 6% 6% Carrying Value Dr. Cash 700,000 Principal x Coupon Rate (Ex C) (B - C) (E - D) 6/30/Y1 Dr. Interest Expense 42,000 42,000 42,000 (700,000 x.06) 0 700,000 To record interest payment 42,000 42,000 (700,000 x.06) 0 700,000 To record interest payment 42,000 42,000 (700,000 x.06) 0 700,000 To record interest payment 42,000 42,000 (700,000 x.06) 0 700,000 12/31/Y1 Dr. Interest Expense 42,000 42,000 42,000 (700,000 x.06) 0 700,000 To record interest payment 6/30/Y2 Dr. Interest Expense 42,000 42,000 42,000 (700,000 x.06) 0 700,000 To record interest payment 6/30/Y2 Dr. Interest Expense 42,000 COUPON RATE Imanual:	B C D E Cash Effective Decrease in Outstanding Interest / Payment Interest Balance Balance Carrying Value $1/1/Y1$ $700,000$ 6% 6% Carrying Value To record bond issue $700,000$ $700,000$ Principal x Coupon Rate (E x C) (E - C) (E - D) $6/30/Y1$ $42,000$ <	BCDECashEffectiveDecrease inOutstandingInterest / PaymentInterestBalanceBalance6%6%Carrying Value700,000Cr. Cash6%6%Carrying Value700,000Cr. CashPrincipal x Coupon Rate(Ex C)(E · C)(E · D) $700,000$ Cr. Cash42,00042,000 (700,000 x.06)0700,000Cr. Cash6/30/Y1Dr. Interest Expense42,00042,000 (700,000 x.06)0700,000Cr. Cash6/30/Y1Dr. Interest Expense42,00042,000 (700,000 x.06)0700,000To record interest puymentTo record interest puymentTo record interest puyment42,00042,000 (700,000 x.06)0700,00012/31/Y1Dr. Interest ExpenseCr. Cash42,00042,000 (700,000 x.06)0700,000To record interest puymentTo record interest puymentTo record interest puyment42,00042,000 (700,000 x.06)0700,000To record interest puymentTo record interest puyment600/PON RATEInterest PuymentInterest Expense42,000Interest Expense42,000Semi annual: 42,000700,000 = 12%Interest PuymentInterest PuymentInterest PuymentSemi annual: 42,000700,000 = 12%Interest PuymentInterest PuymentInterest PuymentSemi annual: 42,000700,000 = 12%Interest PuymentInterest PuymentInterest PuymentSemi annual: 42,000700,000 = 12%Interest Puyment

PREMIUM COUPON RATE: 6% > MARKET RATE: 5%

BOND PRICE	
PV of Interest Cash Payments	\$213,179
\$42,000 x × 5.07569	
Table: ordinary annuity (n=6, i= 5%)	
PV of Principal	
\$700,000 x 0.74622	\$522,354
Table: PV of \$1 (n=6, i=5%)	
	\$735,533

P e r i		PRESENT VALUE OF ORDINARY ANNUITY (annuity in arrears end of period payments)														PRESENT VALUE OF \$1																			
0 d								RATE	E PER PE	ERIOD								0								RATE	PER PE	RIOD							
s	0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%	s	0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%
1	0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286	1	0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286
2	1.99252	1.98510	1.97772	1.97040	1.95588	1.94156	1.92742	1.91347	1.88609	1.85941	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005	2	0.99502	0.99007	0.98517	0.98030	0.97066	0.96117	0.95181	0.94260	0.92456	0.90703	0.89000	0.87344	0.85734	0.84168	0.82645	0.81162	0.79719
3	2.98506	2.97025	2.95556	2.94099	2.91220	2.88388	2.85602	2.82861	2.77509	2.72325	2.67301	2.62432	2.57710	2.53129	2.48685	2.44371	2.40183	3	0.99254	0.98515	0.97783	0.97059	0.95632	0.94232	0.92860	0.91514	0.88900	0.86384	0.83962	0.81630	0.79383	0.77218	0.75131	0.73119	0.71178
4	3.97512	3.95050	3.92611	3.90197	3.85438	3.80773	3.76197	3.71710	3.62990	3.54595	3.46511	3.38721	3.31213	3.23972	3.16987	3.10245	3.03735	4	0.99006	0.98025	0.97055	0.96098	0.94218	0.92385	0.90595	0.88849	0.85480	0.82270	0.79209	0.76290	0.73503	0.70843	0.68301	0.65873	0.63552
5	4.96272	4.92587	4.88944	4.85343	4.78264	4.71346	4.64583	4.57971	4.45182	4.32948	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478	5	0.98759	0.97537	0.96333	0.95147	0.92826	0.90573	0.88385	0.86261	0.82193	0.78353	0.74726	0.71299	0.68058	0.64993	0.62092	0.59345	0.56743
6	5.94785	5.89638	5.84560	5.79548	5.69719	5.60143	5.50813	5.41719	5.24214	5.07569	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.11141	6	0.98513	0.97052	0.95616	0.94205	0.91454	0.88797	0.86230	0.83748	0.79031	0.74622	0.70496	0.66634	0.63017	0.59627	0.56447	0.53464	0.50663
7	6.93052	6.86207	6.79464	6.72819	6.59821	6.47199	6.34939	6.23028	6.00205	5.78637	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376	7	0.98267	0.96569	0.94904	0.93272	0.90103	0.87056	0.84127	0.81309	0.75992	0.71068	0.66506	0.62275	0.58349	0.54703	0.51316	0.48166	0.45235
8	7.91074	7.82296	7.73661	7.65168	7.48593	7.32548	7.17014	7.01969	6.73274	6.46321	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764	8	0.98022	0.96089	0.94198	0.92348	0.88771	0.85349	0.82075	0.78941	0.73069	0.67684	0.62741	0.58201	0.54027	0.50187	0.46651	0.43393	0.40388
9	8.88852	8.77906	8.67158	8.56602	8.36052	8.16224	7.97087	7.78611	7.43533	7.10782	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825	9	0.97778	0.95610	0.93496	0.91434	0.87459	0.83676	0.80073	0.76642	0.70259	0.64461	0.59190	0.54393	0.50025	0.46043	0.42410	0.39092	0.36061
10	9.86386	9.73041	9.59958	9.47130	9.22218	8.98259	8.75206	8.53020	8.11090	7.72173	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022	10	0.97534	0.95135	0.92800	0.90529	0.86167	0.82035	0.78120	0.74409	0.67556	0.61391	0.55839	0.50835	0.46319	0.42241	0.38554	0.35218	0.32197
11	10.83677	10.67703	10.52067	10.36763	10.07112	9.78685	9.51421	9.25262	8.76048	8.30641	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770	11	0.97291	0.94661	0.92109	0.89632	0.84893	0.80426	0.76214	0.72242	0.64958	0.58468	0.52679	0.47509	0.42888	0.38753	0.35049	0.31728	0.28748
12	11.80725	11.61893	11.43491	11.25508	10.90751	10.57534	10.25776	9.95400	9.38507	8.86325	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437	12	0.97048	0.94191	0.91424	0.88745	0.83639	0.78849	0.74356	0.70138	0.62460	0.55684	0.49697	0.44401	0.39711	0.35553	0.31863	0.28584	0.25668
13	12.77532	12.55615	12.34235	12.13374	11.73153	11.34837	10.98318	10.63496	9.98565	9.39357	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355	13	0.96806	0.93722	0.90743	0.87866	0.82403	0.77303	0.72542	0.68095	0.60057	0.53032	0.46884	0.41496	0.36770	0.32618	0.28966	0.25751	0.22917
14	13.74096	13.48871	13.24302	13.00370	12.54338	12.10625	11.69091	11.29607	10.56312	9.89864	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817	14	0.96565	0.93256	0.90068	0.86996	0.81185	0.75788	0.70773	0.66112	0.57748	0.50507	0.44230	0.38782	0.34046	0.29925	0.26333	0.23199	0.20462
15	14.70420	14.41662	14.13699	13.86505	13.34323	12.84926	12.38138	11.93794	11.11839	10.37966	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086	15	0.96324	0.92792	0.89397	0.86135	0.79985	0.74301	0.69047	0.64186	0.55526	0.48102	0.41727	0.36245	0.31524	0.27454	0.23939	0.20900	0.18270
16	15.66504	15.33993	15.02431	14.71787	14.13126	13.57771	13.05500	12.56110	11.65230	10.83777	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399	16	0.96084	0.92330	0.88732	0.85282	0.78803	0.72845	0.67362	0.62317	0.53391	0.45811	0.39365	0.33873	0.29189	0.25187	0.21763	0.18829	0.16312
17	16.62348	16.25863	15.90502	15.56225	14.90765	14.29187	13.71220	13.16612	12.16567	11.27407	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963	17	0.95844	0.91871	0.88071	0.84438	0.77639	0.71416	0.65720	0.60502	0.51337	0.43630	0.37136	0.31657	0.27027	0.23107	0.19784	0.16963	0.14564
18	17.57953	17.17277	16.77918	16.39827	15.67256	14.99203	14.35336	13.75351	12.65930	11.68959	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967	18	0.95605	0.91414	0.87416	0.83602	0.76491	0.70016	0.64117	0.58739	0.49363	0.41552	0.35034	0.29586	0.25025	0.21199	0.17986	0.15282	0.13004
19	18.53320	18.08236	17.64683	17.22601	16.42617	15.67846	14.97889	14.32380	13.13394	12.08532	11.15812	10.33560	9.60360	8.95011	8.36492	7.83929	7.36578	19	0.95367	0.90959	0.86765	0.82774	0.75361	0.68643	0.62553	0.57029	0.47464	0.39573	0.33051	0.27651	0.23171	0.19449	0.16351	0.13768	0.11611
20	19.48449	18.98742	18.50802	18.04555	17.16864	16.35143	15.58916	14.87747	13.59033	12.46221	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944	20	0.95129	0.90506	0.86119	0.81954	0.74247	0.67297	0.61027	0.55368	0.45639	0.37689	0.31180	0.25842	0.21455	0.17843	0.14864	0.12403	0.10367
21	20.43340	19.88798	19.36280	18.85698	17.90014	17.01121	16.18455	15.41502	14.02916	12.82115	11.76408	10.83553	10.01680	9.29224	8.64869	8.07507	7.56200	21	0.94892	0.90056	0.85478	0.81143	0.73150	0.65978	0.59539	0.53755	0.43883	0.35894	0.29416	0.24151	0.19866	0.16370	0.13513	0.11174	0.09256
22	21.37995	20.78406	20.21121	19.66038	18.62082	17.65805	16.76541	15.93692	14.45112	13.16300	12.04158	11.06124	10.20074	9.44243	8.77154	8.17574	7.64465	22	0.94655	0.89608	0.84842	0.80340	0.72069	0.64684	0.58086	0.52189	0.42196	0.34185	0.27751	0.22571	0.18394	0.15018	0.12285	0.10067	0.08264
23	22.32414	21.67568	21.05331	20.45582	19.33086	18.29220	17.33211	16.44361	14.85684	13.48857	12.30338	11.27219	10.37106	9.58021	8.88322	8.26643	7.71843	23	0.94419	0.89162	0.84210	0.79544	0.71004	0.63416	0.56670	0.50669	0.40573	0.32557	0.26180	0.21095	0.17032	0.13778	0.11168	0.09069	0.07379
24	23.26598	22.56287	21.88915	21.24339	20.03041	18.91393	17.88499	16.93554	15.24696	13.79864	12.55036	11.46933	10.52876	9.70661	8.98474	8.34814	7.78432	24	0.94184	0.88719	0.83583	0.78757	0.69954	0.62172	0.55288	0.49193	0.39012	0.31007	0.24698	0.19715	0.15770	0.12640	0.10153	0.08170	0.06588
25	24.20547	23.44564	22.71876	22.02316	20.71961	19.52346	18.42438	17.41315	15.62208	14.09394	12.78336	11.65358	10.67478	9.82258	9.07704	8.42174	7.84314	25	0.93949	0.88277	0.82961	0.77977	0.68921	0.60953	0.53939	0.47761	0.37512	0.29530	0.23300	0.18425	0.14602	0.11597	0.09230	0.07361	0.05882
30	28.86787	27.79405	26.77508	25.80771	24.01584	22.39646	20.93029	19.60044	17.29203	15.37245	13.76483	12.40904	11.25778	10.27365	9.42691	8.69379	8.05518	30	0.92783	0.86103	0.79919	0.74192	0.63976	0.55207	0.47674	0.41199	0.30832	0.23138	0.17411	0.13137	0.09938	0.07537	0.05731	0.04368	0.03338
35	33.47243	32.03537	30.68266	29.40858	27.07559	24.99862	23.14516	21.48722	18.66461	16.37419	14.49825	12.94767	11.65457	10.56682	9.64416	8.85524	8.17550	35	0.91632	0.83982	0.76988	0.70591	0.59387	0.50003	0.42137	0.35538	0.25342	0.18129	0.13011	0.09366	0.06763	0.04899	0.03558	0.02592	0.01894
40	38.01986	36.17223	34.44694	32.83469	29.91585	27.35548	25.10278	23.11477	19.79277	17.15909	15.04630	13.33171	11.92461	10.75736	9.77905	8.95105	8.24378	40	0.90495	0.81914	0.74165	0.67165	0.55126	0.45289	0.37243	0.30656	0.20829	0.14205	0.09722	0.06678	0.04603	0.03184	0.02209	0.01538	0.01075
50	46.94617	44.14279	41.56645	39.19612	34.99969	31.42361	28.36231	25.72976	21.48218	18.25593	15.76186	13.80075	12.23348	10.96168	9.91481	9.04165	8.30450	50	0.88263	0.77929	0.68825	0.60804	0.47500	0.37153	0.29094	0.22811	0.14071	0.08720	0.05429	0.03395	0.02132	0.01345	0.00852	0.00542	0.00346

PREMIUM
COUPON RATE: 6%
>
MARKET RATE: 5%

BOND PRICE	
PV of Interest Cash Payments	\$213,179
\$42,000 x × 5.07569	
Table: ordinary annuity (n=6, i= 5%)	
PV of Principal	
\$700,000 x 0.74622	\$522,354
Table: PV of \$1 (n=6, i=5%)	
	\$735,533

Α	В	С	D	E
Date	Cash	Effective	Decrease in	Outstanding
	Interest / Payment	Interest	Balance	Balance
	6%	5%		Carrying Value
	Principal x Coupon Rate	(E x C)	(B - C)	(E - D)
1/1/Y1				\$735,533
6/30/Y1	42,000	36,777 (735,533 x 5%)	5,223	730,310
12/31/Y1	42,000	36,516 (730,310 x 5%)	5,484	724,826
6/30/Y2	42,000	36,241 (724,826 x 5%)	5,759	719,067
12/31/Y2	42,000	35,953 (719,067 x 5%)	6,047	713,020
6/30/Y3	42,000	35,651 (713,020 x 5%)	6,349	706,671
12/31/Y3	42,000	*35,329 (706,671 x 5%)	6,671	700,000
	252,000	216,467	35,533	
			(\$735,533 - \$700,000)	
	COUPON RATE			
	Semi annual: 42,000/700,000 = 6.%			
	Annual: 84,000/700,000 = 12%			
	FFECTIVE/ MARKET INTEREST RATE			
	Semi annual:36,777/735,533 = 5%			
	Annual: 36,677 + 36,516/735,533 = 10%			20

PREMIUM COUPON RATE: 6% > MARKET RATE: 5%

BOND PRICE	
PV of Interest Cash Payments	\$213,179
\$42,000 x × 5.07569	
Table: ordinary annuity (n=6, i= 5%)	
PV of Principal	
\$700,000 x 0.74622	\$522,354
Table: PV of \$1 (n=6, i=5%)	
	\$735,533

JOURNAL ENTRIES										
1/1/Y1			12/31Y3							
Dr. Cash	735,533		Dr. Bonds Payable	700,000						
Cr. Bonds Payable		700,000	Cr. Cash		700,000					
Cr. Premium in Bonds Payable		35,533								
To record bond i	ssue		To record bond princ	ipal paym	ent					
6/30/Y1			6/30/Y3							
Dr. Interest Expense	36,777		Dr. Interest Expense	35,651						
Dr. Premium Amortizaion	5,223		Dr. Premium Amortizaion	6,349						
Cr. Cash		42,000	Cr. Cash		42,000					
To record interest p	ayment		To record interest	<i>payment</i>						
12/31/Y1			12/31/Y3							
Dr. Interest Expense	36,516		Dr. Interest Expense	35,329						
Dr. Premium Amortizaion	5,484		Dr. Premium Amortizaion	6,671						
Cr. Cash		42,000	Cr. Cash		42,000					
To record interest p	ayment		To record interest	<i>payment</i>						
6/30/Y2										
Dr. Interest Expense	36,241									
Dr. Premium Amortizaion	5,759									
Cr. Cash		42,000								
To record interest p	ayment									
12/31/Y2										
Dr. Interest Expense	35,953									
Dr. Premium Amortizaion	6,047									
Cr. Cash		42,000								
To record interest p	ayment			2	1					

BOND PRICE	
PV of Interest Cash Payments	\$213,179
\$42,000 x × 5.07569	
Table: ordinary annuity (n=6, i= 5%)	
PV of Principal	
\$700,000 x 0.74622	\$522,354
Table: PV of \$1 (n=6, i=5%)	
	\$735,533

Α	В	С	D	E		J	DURNAL E	INTRIES		
Date	Cash	Effective	Decrease in	Outstanding	1/1/Y1			12/31Y3	\$	
Date		Literit	Decrease III	D	Dr. Cash	735,533		Dr. Bonds Payable	700,000	1
	Interest / Payment	Interest	Balance	Balance	Cr. Bonds Payable		700,000	Cr. Cash		700,000
	6%	5%		Carrying Value	Cr. Premium in Bonds Payab	le	35,533			
					To record bon	d issue		To record bond princ	ipal payn	nent 💦
	Principal x Coupon Rate	(E x C)	(B - C)	(E - D)	6/30/Y1			6/30/¥3		
1/1/Y1				\$735,533	Dr. Interest Expense	36,777		Dr. Interest Expense	35,651	
6/30/Y1	42,000	36,777 (735,533 x 5%)	5,223	730,310	Dr. Premium Amortizaion	5,223		Dr. Premium Amortizaion	6,349	
12/31/Y1	42.000	36.516 (730.310 x 5%)	5.484	724,826	Cr. Cash		42,000	Cr. Cash		42,000
6/20/V2	42,000	26.041 (704.006	5 750	710.067	To record interes	t payment		To record interest	t payment	:
0/30/12	42,000	50,241 (724,826 x 5%)	3,739	/19,00/	12/31/Y1			12/31/Y3		
12/31/Y2	42,000	35,953 (719,067 x 5%)	6,047	713,020	Dr. Interest Expense	36,516		Dr. Interest Expense	35,329	
6/30/Y3	42,000	35,651 (713,020 x 5%)	6,349	706,671	Dr. Premium Amortizaion	5,484	12.000	Dr. Premium Amortizaion	6,671	40.000
12/31/Y3	42.000	*35.329 (706.671 x 5%)	6.671	700.000	Cr. Cash To record interes	t navmant	42,000	Cr. Cash	t navmont	42,000
	252.000	216.467	35,533	,	6/30/Y2				puyment	
	,	,	(\$725.522 \$700.000)		Dr. Interest Expense	36,241				
			(\$755,555 - \$700,000)		Dr. Premium Amortizaion	5,759				
	COUPON RATE				Cr. Cash		42,000			
	Semi annual: 42,000/700,000 = 6.%				To record interes	t payment				
	Annual: 84,000/700,000 = 12%				12/31/Y2					
	FFECTIVE/ MARKET INTEREST RATE				Dr. Interest Expense	35,953				
					Dr. Premium Amortizaion	6,047				
	Semi annual: $30, 111/35, 533 = 5\%$				Cr. Cash		42,000			
	Annual: 36,677 + 36,516/735,533 = 10%				To record interes	t payment				

DISCOUNT COUPON RATE:6% < MARKET RATE: 7%

BOND PRICE										
PV of Interest Cash Payments	\$200,195									
\$42,000 x × 4.76654										
Table: ordinary annuity (n=6, i=7%)										
PV of Principal										
\$700,000 x 0.66634	\$466,438									
Table: PV of \$1 (n=6, i=7%)										
	\$666,633									

Pe					P	RESE	NT VA		OF OF		RY A	רוטמא	ΓY					Pe							PRE	SEN	T VAL		- \$1						
i		(annuity in arrears end of period payments)												i											÷.										
o d		RATE PER PERIOD													o d					_			RATE	PER PE	RIOD										
s	0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%	s	0.25%	0.50%	0.75%	1.00%	1.50%	2.00%	2.50%	3.00%	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%
1	0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286	1	0.99751	0.99502	0.99256	0.99010	0.98522	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286
2	1.99252	1.98510	1.97772	1.97040	1.95588	1.94156	1.92742	1.91347	1.88609	1.85941	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005	2	0.99502	0.99007	0.98517	0.98030	0.97066	0.96117	0.95181	0.94260	0.92456	0.90703	0.89000	0.87344	0.85734	0.84168	0.82645	0.81162	0.79719
3	2.98506	2.97025	2.95556	2.94099	2.91220	2.88388	2.85602	2.82861	2.77509	2.72325	2.67301	2.62432	2.57710	2.53129	2.48685	2.44371	2.40183	3	0.99254	0.98515	0.97783	0.97059	0.95632	0.94232	0.92860	0.91514	0.88900	0.86384	0.83962	0.81630	0.79383	0.77218	0.75131	0.73119	0.71178
4	3.97512	3.95050	3.92611	3.90197	3.85438	3.80773	3.76197	3.71710	3.62990	3.54595	3.46511	3.38721	3.31213	3.23972	3.16987	3.10245	3.03735	4	0.99006	0.98025	0.97055	0.96098	0.94218	0.92385	0.90595	0.88849	0.85480	0.82270	0.79209	0.76290	0.73503	0.70843	0.68301	0.65873	0.63552
5	4.96272	4.92587	4.88944	4.85343	4.78264	4.71346	4.64583	4.57971	4.45182	4.32948	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478	5	0.98759	0.97537	0.96333	0.95147	0.92826	0.90573	0.88385	0.86261	0.82193	0.78353	0.74726	0.71299	0.68058	0.64993	0.62092	0.59345	0.56743
6	5.94785	5.89638	5.84560	5.79548	5.69719	5.60143	5.50813	5.41719	5.24214	5.07569	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.11141	6	0.98513	0.97052	0.95616	0.94205	0.91454	0.88797	0.86230	0.83748	0.79031	0.74622	0.70496	0.66634	0.63017	0.59627	0.56447	0.53464	0.50663
7	6.93052	6.86207	6.79464	6.72819	6.59821	6.47199	6.34939	6.23028	6.00205	5.78637	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376	7	0.98267	0.96569	0.94904	0.93272	0.90103	0.87056	0.84127	0.81309	0.75992	0.71068	0.66506	0.62275	0.58349	0.54703	0.51316	0.48166	0.45235
8	7.91074	7.82296	7.73661	7.65168	7.48593	7.32548	7.17014	7.01969	6.73274	6.46321	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764	8	0.98022	0.96089	0.94198	0.92348	0.88771	0.85349	0.82075	0.78941	0.73069	0.67684	0.62741	0.58201	0.54027	0.50187	0.46651	0.43393	0.40388
9	8.88852	8.77906	8.67158	8.56602	8.36052	8.16224	7.97087	7.78611	7.43533	7.10782	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825	9	0.97778	0.95610	0.93496	0.91434	0.87459	0.83676	0.80073	0.76642	0.70259	0.64461	0.59190	0.54393	0.50025	0.46043	0.42410	0.39092	0.36061
10	9.86386	9.73041	9.59958	9.47130	9.22218	8.98259	8.75206	8.53020	8.11090	7.72173	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022	10	0.97534	0.95135	0.92800	0.90529	0.86167	0.82035	0.78120	0.74409	0.67556	0.61391	0.55839	0.50835	0.46319	0.42241	0.38554	0.35218	0.32197
11	10.83677	10.67703	10.52067	10.36763	10.07112	9.78685	9.51421	9.25262	8.76048	8.30641	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770	11	0.97291	0.94661	0.92109	0.89632	0.84893	0.80426	0.76214	0.72242	0.64958	0.58468	0.52679	0.47509	0.42888	0.38753	0.35049	0.31728	0.28748
12	11.80725	11.61893	11.43491	11.25508	10.90751	10.57534	10.25776	9.95400	9.38507	8.86325	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437	12	0.97048	0.94191	0.91424	0.88745	0.83639	0.78849	0.74356	0.70138	0.62460	0.55684	0.49697	0.44401	0.39711	0.35553	0.31863	0.28584	0.25668
13	12.77532	12.55615	12.34235	12.13374	11.73153	11.34837	10.98318	10.63496	9.98565	9.39357	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355	13	0.96806	0.93722	0.90743	0.87866	0.82403	0.77303	0.72542	0.68095	0.60057	0.53032	0.46884	0.41496	0.36770	0.32618	0.28966	0.25751	0.22917
14	13.74096	13.48871	13.24302	13.00370	12.54338	12.10625	11.69091	11.29607	10.56312	9.89864	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817	14	0.96565	0.93256	0.90068	0.86996	0.81185	0.75788	0.70773	0.66112	0.57748	0.50507	0.44230	0.38782	0.34046	0.29925	0.26333	0.23199	0.20462
15	14.70420	14.41662	14.13699	13.86505	13.34323	12.84926	12.38138	11.93794	11.11839	10.37966	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086	15	0.96324	0.92792	0.89397	0.86135	0.79985	0.74301	0.69047	0.64186	0.55526	0.48102	0.41727	0.36245	0.31524	0.27454	0.23939	0.20900	0.18270
16	15.66504	15.33993	15.02431	14.71787	14.13126	13.57771	13.05500	12.56110	11.65230	10.83777	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399	16	0.96084	0.92330	0.88732	0.85282	0.78803	0.72845	0.67362	0.62317	0.53391	0.45811	0.39365	0.33873	0.29189	0.25187	0.21763	0.18829	0.16312
17	16.62348	16.25863	15.90502	15.56225	14.90765	14.29187	13.71220	13.16612	12.16567	11.27407	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963	17	0.95844	0.91871	0.88071	0.84438	0.77639	0.71416	0.65720	0.60502	0.51337	0.43630	0.37136	0.31657	0.27027	0.23107	0.19784	0.16963	0.14564
18	17.57953	17.17277	16.77918	16.39827	15.67256	14.99203	14.35336	13.75351	12.65930	11.68959	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967	18	0.95605	0.91414	0.87416	0.83602	0.76491	0.70016	0.64117	0.58739	0.49363	0.41552	0.35034	0.29586	0.25025	0.21199	0.17986	0.15282	0.13004
19	18.53320	18.08236	17.64683	17.22601	16.42617	15.67846	14.97889	14.32380	13.13394	12.08532	11.15812	10.33560	9.60360	8.95011	8.36492	7.83929	7.36578	19	0.95367	0.90959	0.86765	0.82774	0.75361	0.68643	0.62553	0.57029	0.47464	0.39573	0.33051	0.27651	0.23171	0.19449	0.16351	0.13768	0.11611
20	19.48449	18.98742	18.50802	18.04555	17.16864	16.35143	15.58916	14.87747	13.59033	12.46221	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944	20	0.95129	0.90506	0.86119	0.81954	0.74247	0.67297	0.61027	0.55368	0.45639	0.37689	0.31180	0.25842	0.21455	0.17843	0.14864	0.12403	0.10367
21	20.43340	19.88798	19.36280	18.85698	17.90014	17.01121	16.18455	15.41502	14.02916	12.82115	11.76408	10.83553	10.01680	9.29224	8.64869	8.07507	7.56200	21	0.94892	0.90056	0.85478	0.81143	0.73150	0.65978	0.59539	0.53755	0.43883	0.35894	0.29416	0.24151	0.19866	0.16370	0.13513	0.111/4	0.09256
22	21.37995	20.78406	20.21121	19.66038	18.62082	17.65805	16.76541	15.93692	14.45112	13.16300	12.04158	11.06124	10.20074	9.44243	8.77154	8.1/5/4	7.64465	22	0.94655	0.89608	0.84842	0.80340	0.72069	0.64684	0.58086	0.52189	0.42196	0.34185	0.27751	0.22571	0.18394	0.15018	0.12285	0.10067	0.08264
23	22.32414	21.67568	21.05331	20.45582	19.33086	18.29220	17.33211	16.44361	14.85684	13.48857	12.30338	11.27219	10.37106	9.58021	8.88322	8.26643	7.71843	23	0.94419	0.89162	0.84210	0.79544	0.71004	0.63416	0.56670	0.50669	0.405/3	0.32557	0.26180	0.21095	0.17032	0.13/78	0.11168	0.09069	0.07379
24	23.20590	22.56267	21.00915	21.24339	20.03041	10.91393	17.00499	10.93554	15.24696	13.79664	12.55036	11.46933	10.52676	9.70661	0.904/4	0.34014	7.04044	24	0.94104	0.00719	0.03503	0.70757	0.09954	0.02172	0.55200	0.49193	0.39012	0.31007	0.24090	0.19/15	0.15//0	0.12040	0.10153	0.00170	0.00000
25	24.20547	23.44564	22./10/6	22.02316	20.71961	19.52346	10.42438	17.41315	13.62208	14.09394	12.76336	12,40004	10.0/4/8	9.62258	9.07704	0.421/4	0.05510	25	0.93949	0.002//	0.70010	0.7/19/7	0.00921	0.60953	0.53939	0.41100	0.3/512	0.29530	0.23300	0.10425	0.00020	0.07527	0.09230	0.0/301	0.03002
30	20.00/8/	27.79405	20.77508	25.00771	24.01584	22.39046	20.93029	19.60044	17.29203	15.37245	13.70483	12.40904	11.25/78	10.27365	9.42091	0.09379	0.05516	30	0.92763	0.00103	0.79919	0.74192	0.63976	0.55207	0.47074	0.41199	0.30032	0.123138	0.17411	0.13137	0.09938	0.07537	0.03731	0.04306	0.03338
35	33.47243	32.03537	30.00200	29.40058	20.04595	24.99662	25.14516	21.46/22	10.00461	10.3/419	14.49625	12.94/6/	11.0545/	10.50082	9.04416	0.00024	0.1/550	35	0.91032	0.03902	0.70968	0.70591	0.59367	0.50003	0.42137	0.35538	0.20342	0.10129	0.00722	0.09306	0.00/03	0.024099	0.03556	0.02592	0.01094
40	46.04647	30.17223	34.44094	32.63469	29.91585	21.35548	25.10278	25.114//	19./92//	17.15909	15.04030	13.331/1	11.92461	10.75736	9.77905	0.95105	0.24376	40	0.90495	0.01914	0.74105	0.67165	0.55126	0.45209	0.37243	0.30036	0.20029	0.09700	0.05/22	0.00078	0.04003	0.03104	0.02209	0.01536	0.01075
50	40.94017	44.142/9	41.50045	59,19012	24.99969	31.42361	20.30231	25.12976	21.40218	16.25593	15.76166	13.60075	12.20048	10.90168	9,91461	9.04165	0.30450	50	0.00203	0.11929	0.00025	0.00004	0.4/500	0.3/153	0.29094	0.22011	0.14071	0.00720	0.05429	0.03395	0.02132	0.01345	0.00052	0.00542	0.0034

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		Α	В	С	D	E
DISCOUN	T	Date	Cash	Effective	Decrease in	Outstanding
COUPON RA	ATE		Interest / Payment	Interest	Balance	Balance
<			6%	7%		Carrying Value
MARKET RA	ATE					
			Principal x Coupon Rate	(E x C)	(B - C)	(E - D)
BOND PRICI	E	- 1/1/Y1				\$666,633
PV of Interest Cash Payments	\$200 195	6/30/Y1	42,000	46,664 (666.633 X 7%)	4,664	671,297
\$42,000 x × 4.76654	φ200,175	12/31/Y1	42,000	46,991 (671,297 X 7%)	4,991	676,288
Table: ordinary annuity (n=6, i=7%)		6/30/Y2	42,000	47,340 (676,288 X 7%)	5,340	681,628
PV of Principal		- 12/31/Y2	42.000	47.714 (681.628 X 7%)	5.714	687.342
\$/00,000 x 0.66634	\$466,438	- 6/30/Y3	42.000	48.114 (687.342 X 7%)	6.114	693.456
Table. F V 01 \$1 (I=0, I= 770)	\$666,633	12/31/Y3	42.000	*48.544 (693.456 X 7%)	6.544	700.000
	. ,		252,000	285,367	33,367	
			,		(\$666,633 - \$700,000)	
			COUPON RATE			
			Semi annual: 42,000/700,000 = 6.%			
			Annual: 84,000/700,000 = 12%			
			FFECTIVE/ MARKET INTEREST RATE			
			Semi annual:46,664 / 666,633 = 7%			
			Annual:46,664 +46,991/666,633 = 14%			
					1	

*rounded

DISCOUNT COUPON RATE < MARKET RATE

BOND PRICE	E
PV of Interest Cash Payments	\$200,195
\$42,000 x × 4.76654	
Table: ordinary annuity (n=6, i=7%)	
PV of Principal	
\$700,000 x 0.66634	\$466,438
Table: PV of \$1 (n=6, i=7%)	
	\$666,633

	J	IOURNAL	ENTRIES			
1/1/Y1			12/31/Y3			
Dr. Cash	666,633		Dr. Bonds Payable	700,000		
Dr. Discount on Bonds Payable	33,367		Cr. Cash		700,000	
Cr. Bonds Payable		700,000				
To record bond issue.			To record bond prin	cipal payn	nent	
6/30/Y1			6/30/Y3			
Dr. Interest Expense	46,664		Dr. Interest Expense	48,114		
Cr. DiscountAmortizaion		4,664	Cr. DiscountAmortizaion		6,114	
Cr. Cash		42,000	Cr. Cash		42,000	
To record interest po	To record interest payment			To record interest payment		
12/31/Y1			12/31/Y3			
Dr. Interest Expense	46,991		Dr. Interest Expense	48,544		
Cr. DiscountAmortizaion		4,991	Cr. DiscountAmortizaion		6,544	
Cr. Cash		42,000	Cr. Cash		42,000	
To record interest po	ayment		To record intere	st payment	<u>.</u>	
6/30/Y2						
Dr. Interest Expense	47,340					
Cr. DiscountAmortizaion		5,340				
Cr. Cash		42,000				
To record interest payment						
12/31/Y2						
Dr. Interest Expense	47,714					
Cr. DiscountAmortizaion		5,714				
Cr. Cash		42,000				
To record interest po	ayment			25		

BOND PRICE					
PV of Interest Cash Payments	\$200,195				
\$42,000 x × 4.76654	+				
Table: ordinary annuity (n=6, i=7%)					
PV of Principal					
\$700,000 x 0.66634	\$466,438				
Table: PV of \$1 (n=6, i= 7%)					
	\$666,633				

Α	В	С	D	Е
Date	Cash	Effective	Decrease in	Outstanding
	Interest / Payment	Interest	Balance	Balance
	6%	7%		Carrying Value
	Principal x Coupon Rate	(E x C)	(B - C)	(E - D)
1/1/Y1				\$666,633
6/30/Y1	42,000	46,664 (666.633 X 7%)	4,664	671,297
12/31/Y1	42,000	46,991 (671,297 X 7%)	4,991	676,288
6/30/Y2	42,000	47,340 (676,288 X 7%)	5,340	681,628
12/31/Y2	42,000	47,714 (681,628 X 7%)	5,714	687,342
6/30/Y3	42,000	48,114 (687,342 X 7%)	6,114	693,456
12/31/Y3	42,000	*48,544 (693,456 X 7%)	6,544	700,000
	252,000	285,367	33,367	
			(\$666,633 - \$700,000)	
	COUPON RATE			
	Semi annual: 42,000/700,000 = 6.%			
	Annual: 84,000/700,000 = 12%			
	FFECTIVE/ MARKET INTEREST RATE			
	Semi annual:46,664 / 666,633 = 7%			
	Annual:46,664 +46,991/666,633 = 14%			

	J	IOURNAL	ENTRIES		
1/1/Y1			12/31/\	73	
Dr. Cash	666,633		Dr. Bonds Payable	700,000	
Dr. Discount on Bonds Payable	33,367		Cr. Cash		700,000
Cr. Bonds Payable		700,000			
To record bond issue.			To record bond prin	cipal payn	nent
6/30/Y1			6/30/Y3		
Dr. Interest Expense	46,664		Dr. Interest Expense	48,114	
Cr. DiscountAmortizaion		4,664	Cr. DiscountAmortizaion		6,114
Cr. Cash		42,000	Cr. Cash		42,000
To record interest p	ayment		To record interest payment		
12/31/Y1			12/31/Y3		
Dr. Interest Expense	46,991		Dr. Interest Expense	48,544	
Cr. DiscountAmortizaion		4,991	Cr. DiscountAmortizaion		6,544
Cr. Cash		42,000	Cr. Cash		42,000
To record interest p	ayment		To record intere	st payment	t
6/30/Y2					
Dr. Interest Expense	47,340				
Cr. DiscountAmortizaion		5,340			
Cr. Cash		42,000			
To record interest p	ayment				
12/31/Y2					
Dr. Interest Expense	47,714				
Cr. DiscountAmortizaion		5,714			
Cr. Cash		42,000		26	
To record interest p	ayment			20	

		AMORTIZATION TABLE: BOND ISSUED AT PAR							
Α	В	С	D	E					
Date	Cash	Effective	Decrease in	Outstanding					
	Interest / Payment	Interest	Balance	Balance					
	6%	6%		Carrying Value					
	Principal x Coupon Rate	(E x C)	(B - C)	(E - D)					
1/1/Y1				\$700,000					
6/30/Y1	42,000	42,000 (700,000 X .06)	0	700,000					
12/31/Y1	42,000	42,000 (700,000 X .06)	0	700,000					
6/30/Y2	42,000	42,000 (700,000 X .06)	0	700,000					
12/31/Y2	42,000	42,000 (700,000 X .06)	0	700,000					
6/30/Y3	42,000	42,000 (700,000 X .06)	0	700,000					
12/31/Y3	42,000	42,000 (700,000 X .06)	0	700,000					
	252,000	216,467	0						

	AMORTIZATION TABLE: BOND ISSUED AT PREMIUM						
Α	В	С	D	E			
Date	Cash	Effective	Decrease in	Outstanding			
	Interest / Payment	Interest	Balance	Balance			
	6%	5%		Carrying Value			
	Principal x Coupon Rate	(E x C)	(B - C)	(E - D)			
1/1/Y1				\$735,533			
6/30/Y1	42,000	36,777 (735,533 x 5%)	5,223	730,310			
12/31/Y1	42,000	36,516 (730,310 x 5%)	5,484	724,826			
6/30/Y2	42,000	36,241 (724,826 x 5%)	5,759	719,067			
12/31/Y2	42,000	35,953 (719,067 x 5%)	6,047	713,020			
6/30/Y3	42,000	35,651 (713,020 x 5%)	6,349	706,671			
12/31/Y3	42,000	*35,329 (706,671 x 5%)	6,671	700,000			
	252,000	216,467	35,533				
			(\$735,533 - \$700,000)				

	AMORTIZATION	TABLE: BOND ISSUED	AT DISCOUNT	
Α	В	С	D	Е
Date	Cash	Effective	Decrease in	Outstanding
	Interest / Payment	Interest	Balance	Balance
	6%	7%		Carrying Valu
	Principal x Coupon Rate	(E x C)	(B - C)	(E - D)
1/1/Y1				\$666,633
6/30/Y1	42,000	46,664 (666.633 X 7%)	4,664	671,297
12/31/Y1	42,000	46,991 (671,297 X 7%)	4,991	676,288
6/30/Y2	42,000	47,340 (676,288 X 7%)	5,340	681,628
12/31/Y2	42,000	47,714 (681,628 X 7%)	5,714	687,342
6/30/Y3	42,000	48,114 (687,342 X 7%)	6,114	693,456
12/31/Y3	42,000	*48,544 (693,456 X 7%)	6,544	700,000
	252,000	285,367	33,367	
			(\$666,633 - \$700,000)	

BALANCE SHEET: BONDS PAYABLE SCHEDULE					
D	ECEMBER 31 X	XXX			
	PAR				
	1/1/Y1	12/31/Y1	12/31/Y2	12/31/Y3	
BONDS PAYABLE	\$700,000	\$700,000	\$700,000	\$700,000	
CARRYING VALUE	\$700,000	\$700,000	\$700,000	\$700,000	

BALANCE SHEET: BONDS PAYABLE SCHEDULE: PAR							
DECEMBER 31 XXXX							
PREMIUM							
1/1/Y1 12/31/Y1 12/31/Y2 12/31/Y2							
BONDS PAYABLE	\$700,000	\$700,000	\$700,000	\$700,000			
ADD: UNAMORTIZED PREMIUM	35,533	24,826	13,020	0			
CARRYING VALUE	\$735,533	\$724,826	\$713,020	\$700,000			

BALANCE SHEET: BONDS PAYABLE SCHEDULE: PAR								
DECEMBER 31 XXXX								
DISCOUNT								
1/1/Y1 12/31/Y1 12/31/Y2 12/31/Y3								
\$700,000	\$700,000	\$700,000	\$700,000					
33,367	23,712	12,658	0					
\$666,633	\$676,288	\$687,342	\$700,000					
	DS PAYAB BER 31 X SCOUNT 1/1/Y1 \$700,000 33,367 \$666,633	S PAYABLE SCHEI BER 31 XXXX SCOUNT 1/1/Y1 12/31/Y1 \$700,000 \$700,000 33,367 23,712 \$666,633 \$676,288	S PAYABLE SCHEDULE: PAI BER 31 XXXX SCOUNT 1/1/Y1 12/31/Y1 12/31/Y2 \$700,000 \$700,000 \$700,000 33,367 23,712 12,658 \$666,633 \$676,288 \$687,342					

Early Extinguishment of Debt (Bond)

1. Debt is **retired prior to its scheduled maturity date:**

2. Any difference between the outstanding debt and the amount paid to retire that debt represents a gain or loss.

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Annual: 84,000/700,000 = 12% **FFECTIVE/ MARKET INTEREST RATE** Semi annual: 42,000/700,000 = 6.% Annual: 84,000/700,000 = 12% С

D

E

		Date	Cash	Effective	Decrease in	Outstanding
			Interest / Payment	Interest	Balance	Balance
			6%	6%		Carrying Value
			Principal x Coupon Rate	(E x C)	(B - C)	(E - D)
12/31Y2		1/1/Y1				\$700,000
Coll prices	\$725 000	6/30/Y1	42,000	42,000 (700,000 X .06)	0	700,000
Call price:	\$725,000	12/31/Y1	42,000	42,000 (700,000 X .06)	0	700,000
Carrying Value	\$700 000	6/30/Y2	42,000	42,000 (700,000 X .06)	0	700,000
Carrying value.		12/31/Y2	42,000	42,000 (700,000 X .06)	0	700,000
Loss on Early Extinguishment of Debt	(\$25,000)	6/30/Y3	42,000	42,000 (700,000 X .06)	0	700,000
		12/31/Y3	42,000	42,000 (700,000 X .06)	0	700,000
			252,000	216,467	0	
			COUPON RATE			
			Semi annual: 42,000/700,000 = 6.%			