Certificates of Deposit

Numeric Response

1. On April 8, Lacy Smith deposited \$6,528.24 in a certificate of deposit for three months that pays 6.30% interest compounded daily. Based on the information provided below, what is the annual yield for the account where she deposited money? Express your answer to the nearest hundredth of a percent.

Interest Earned = Amount - Original Principal

 $Annual_Yield = \frac{Interest_for_One_Year}{Principal}$

Amount per \$1.00 Invested, Daily Compounding						
Annual	3	1	2.5	4	6	8
Rate	Months	Year	Years	Years	Years	Years
4.84%	1.012173	1.049587	1.128616	1.213595	1.336937	1.472813
5.05%	1.012704	1.051793	1.134556	1.223831	1.353886	1.497762
5.30%	1.013337	1.054426	1.141668	1.236129	1.374345	1.528015
5.55%	1.013971	1.057065	1.148825	1.248550	1.395112	1.558878
5.80%	1.014605	1.059710	1.156026	1.261097	1.416193	1.590364
6.05%	1.015239	1.062362	1.163273	1.273769	1.437593	1.622487
6.30%	1.015873	1.065021	1.170565	1.286568	1.459315	1.655257
6.55%	1.016508	1.067687	1.177903	1.299496	1.481366	1.688690
6.80%	1.016508	1.070359	1.185286	1.312554	1.503750	1.722797
7.05%	1.017780	1.073037	1.192716	1.325743	1.526472	1.757594

2. On November 6, Mark Valentino deposited \$4,400.27 in a certificate of deposit for one year that pays 3.14% interest compounded daily. Based on the information provided below, what is the annual yield for the account where he deposited money? Express your answer to the nearest hundredth of a percent.

$$Annual_Yield = \frac{Interest_for_One_Year}{Principal}$$

Amount per \$1.00 Invested, Daily Compounding							
Annual	3	1	2.5	4	6	8	
Rate	Months	Year	Years	Years	Years	Years	
3.14%	1.007881	1.031897	1.081660	1.133823	1.207307	1.285553	
3.34%	1.008385	1.033963	1.087081	1.142929	1.221880	1.306286	
3.59%	1.009015	1.036550	1.093896	1.154414	1.240345	1.332672	
3.84%	1.009646	1.039145	1.100754	1.166015	1.259088	1.359591	
4.09%	1.010277	1.041746	1.107654	1.177732	1.278115	1.387054	
4.34%	1.010909	1.044353	1.114598	1.189567	1.297429	1.415071	
4.59%	1.011540	1.046967	1.121585	1.201521	1.317035	1.443653	
4.84%	1.012173	1.049587	1,128616	1.213595	1.336937	1.472813	
5.09%	1.012173	1.052214	1.135691	1.225790	1.357139	1.502562	
5.34%	1.013439	1.054847	1.142810	1.238108	1.377647	1.532911	

3. On March 12, Kacey Smith deposited \$8,701.80 in a certificate of deposit for six years that pays 3.93% interest compounded daily. How much will she have in the account when it reaches maturity based on the information in the table? Express your answer as a dollar amount to the nearest cent.

$$Annual_Yield = \frac{Interest_for_One_Year}{Principal}$$

Amount per \$1.00 Invested, Daily Compounding							
Annual	3	1	2.5	4	6	8	
Rate	Months	Year	Years	Years	Years	Years	
2.44%	1.006119	1.024699	1.062897	1.102518	1.157654	1.215546	
2.68%	1.006722	1.027161	1.069293	1.113153	1.174443	1.239109	
2.93%	1.007352	1.029732	1.075996	1.124339	1.192191	1.264138	
3.18%	1.007981	1.032310	1.082742	1.135638	1.210207	1.289673	
3.43%	1.008612	1.034893	1.089530	1.147050	1.228496	1.315724	
3.68%	1.009242	1.037484	1.096360	1.158577	1.247060	1.342301	
3.93%	1.009873	1.040080	1.103233	1.170220	1.265905	1.369414	
4.18%	1.010504	1.042684	1,110149	1.181979	1.285035	1.397075	
4.43%	1.010504	1.045293	1.117108	1.193857	1.304453	1.425295	
4.68%	1.011768	1.047909	1.124111	1.205854	1.324165	1.454084	

4. On August 8, Shelly Valentino deposited \$7,161.33 in a certificate of deposit for one year that pays 3.47% interest compounded daily. How much will she have in the account when it reaches maturity based on the information in the table? Express your answer as a dollar amount to the nearest cent.

Interest Earned = Amount - Original Principal

 $Annual_Yield = \frac{Interest_for_One_Year}{Principal}$

Amount per \$1.00 Invested, Daily Compounding							
Annual	3	1	2.5	4	6	8	
Rate	Months	Year	Years	Years	Years	Years	
3.47%	1.008712	1.035307	1.090620	1.148887	1.231447	1.319941	
3.70%	1.009293	1.037691	1.096908	1.159504	1.248557	1.344450	
3.95%	1.009923	1.040288	1.103785	1.171156	1.267425	1.371607	
4.20%	1.010555	1.042892	1.110704	1.182925	1.286577	1.399312	
4.45%	1.011187	1.045502	1.117667	1.194812	1.306019	1.427577	
4.70%	1.011819	1.048119	1.124673	1.206819	1.325755	1.456412	
4.95%	1.012451	1.050742	1.131724	1.218946	1.345788	1.485830	
5.20%	1.013084	1.053372	1,138818	1.231195	1.366124	1.515841	
5.45%	1.013084	1.056008	1.145957	1.243567	1.386768	1.546459	
5.70%	1.014351	1.058651	1.153140	1.256063	1.407723	1.577694	

5. On October 4, Lacy Rodrigez deposited \$2,817.79 in a certificate of deposit for eight years that pays 5.64% interest compounded daily. How much will she have in the account when it reaches maturity based on the information in the table? Express your answer as a dollar amount to the nearest cent.

$$Annual_Yield = \frac{Interest_for_One_Year}{Principal}$$

Amount per \$1.00 Invested, Daily Compounding							
Annual	3	1	2.5	4	6	8	
Rate	Months	Year	Years	Years	Years	Years	
3.44%	1.008637	1.034997	1.089802	1.147509	1.229233	1.316777	
3.64%	1.009141	1.037069	1.095264	1.156725	1.244071	1.338013	
3.89%	1.009772	1.039664	1.102130	1.168349	1.262871	1.365040	
4.14%	1.010403	1.042267	1.109039	1.180090	1.281955	1.392612	
4.39%	1.011035	1.044875	1.115992	1.191949	1.301327	1.420742	
4.64%	1.011667	1.047490	1.122988	1.203926	1.320991	1.449439	
4.89%	1.012299	1.050112	1.130027	1.216025	1.340953	1.478716	
5.14%	1.012932	1.052740	1.137111	1.228244	1.361216	1.508583	
5.39%	1.012932	1.055375	1.144239	1.240586	1.381785	1.539054	
5.64%	1.014199	1.058016	1.151412	1.253053	1.402665	1.570141	

6. On May 14, Kacey Scarpelli deposited \$7,008.67 in a certificate of deposit for one year that pays 5.53% interest compounded daily. How much will she have earned in interest when the certificate reaches maturity based on the information in the table? Express your answer as a dollar amount to the nearest cent.

$$Annual_Yield = \frac{Interest_for_One_Year}{Principal}$$

Amount per \$1.00 Invested, Daily Compounding							
Annual	3	1	2.5	4	6	8	
Rate	Months	Year	Years	Years	Years	Years	
4.81%	1.012097	1.049272	1.127770	1.212140	1.334533	1.469283	
5.03%	1.012654	1.051583	1.133989	1.222852	1.352263	1.495368	
5.28%	1.013287	1.054215	1.141098	1.235141	1.372697	1.525572	
5.53%	1.013920	1.056853	1.148251	1.247552	1.393439	1.556386	
5.78%	1.014554	1.059498	1.155449	1.260088	1.414495	1.587822	
6.03%	1.015188	1.062150	1.162692	1.272750	1.435869	1.619893	
6.28%	1.015823	1.064808	1.169980	1.285539	1.457566	1.652612	
6.53%	1.016458	1.067473	1.177314	1.298457	1.479590	1.685991	
6.78%	1.016458	1.070145	1.184694	1.311504	1.501947	1.720044	
7.03%	1.017729	1.072823	1.192120	1.324683	1.524642	1.754784	

7. On February 19, Lacy Scarpelli deposited \$8,724.77 in a certificate of deposit for eight years that pays 3.93% interest compounded daily. How much will she have earned in interest when the certificate reaches maturity based on the information in the table? Express your answer as a dollar amount to the nearest cent.

Interest Earned = Amount - Original Principal

 $Annual_Yield = \frac{Interest_for_One_Year}{Principal}$

Amount per \$1.00 Invested, Daily Compounding							
Annual	3	1	2.5	4	6	8	
Rate	Months	Year	Years	Years	Years	Years	
3.69%	1.009267	1.037587	1.096634	1.159041	1.247809	1.343375	
3.93%	1.009873	1.040080	1.103233	1.170220	1.265905	1.369414	
4.18%	1.010504	1.042684	1.110149	1.181979	1.285035	1.397075	
4.43%	1.011136	1.045293	1.117108	1.193857	1.304453	1.425295	
4.68%	1.011768	1.047909	1.124111	1.205854	1.324165	1.454084	
4.93%	1.012401	1.050532	1.131158	1.217971	1.344175	1.483454	
5.18%	1.013033	1.053161	1.138249	1.230211	1.364486	1.513418	
5.43%	1.013667	1.055797	1.145384	1.242573	1.385105	1.543987	
5.68%	1.013667	1.058440	1.152564	1.255059	1.406035	1.575172	
5.93%	1.014934	1.061089	1.159789	1.267670	1.427281	1.606988	

8. On January 8, Kacey Smith deposited \$6,058.20 in a certificate of deposit for eight years that pays 4.87% interest compounded daily. How much will she have earned in interest when the certificate reaches maturity based on the information in the table? Express your answer as a dollar amount to the nearest cent.

$$Annual_Yield = \frac{Interest_for_One_Year}{Principal}$$

Amount per \$1.00 Invested, Daily Compounding							
Annual	3	1	2.5	4	6	8	
Rate	Months	Year	Years	Years	Years	Years	
3.90%	1.009797	1.039768	1.102406	1.168817	1.263629	1.366132	
4.12%	1.010353	1.042058	1.108485	1.179146	1.280417	1.390386	
4.37%	1.010984	1.044666	1.115434	1.190996	1.299766	1.418470	
4.62%	1.011616	1.047281	1.122426	1.202964	1.319407	1.447122	
4.87%	1.012249	1.049902	1.129463	1.215052	1.339345	1.476352	
5.12%	1.012881	1.052530	1.136543	1.227262	1.359584	1.506172	
5.37%	1.013515	1.055164	1.143668	1.239594	1.380128	1.536594	
5.62%	1.014148	1.057805	1.150837	1.252051	1.400983	1.567631	
5.87%	1.014148	1.060452	1.158051	1.264632	1.422153	1.599294	
6.12%	1.015416	1.063106	1.165310	1.277340	1.443642	1.631597	

Certificates of Deposit Answer Section

NUMERIC RESPONSE

- 1. ANS: 6.50
 - PTS: 1
- 2. ANS: 3.19
 - PTS: 1
- 3. ANS: 11,015.65
 - PTS: 1
- 4. ANS: 7,414.18
 - PTS: 1
- 5. ANS: 4,424.33
 - PTS: 1
- 6. ANS: 398.46
 - PTS: 1
- 7. ANS: 3,223.05
 - PTS: 1
- 8. ANS: 2,885.84
 - PTS: 1