CSC2402 Assignment 1

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Output Screenshots:

Question 1

Number: 1011111101 is a palindromic number.

Number: 112121211 is a palindromic number.

Number: 4436666344 is a palindromic number.

Number: 2331991332 is a palindromic number.

Number: 1744114471 is a palindromic number.

Number: 1838558381 is a palindromic number.

Number: 293191392 is a palindromic number.

Number: 2089009802 is a palindromic number.

A total of 8 palindromic numbers were found.

Question 2

1 2	+	Number	+ Prime	++ Armstrong
3	+		+	+
4 5	+	101 	X +	 ++
6	1	103	l x	1
7 8		107	+ x	
9 10	+	 109	+ X	++
11	+		+	<u>+</u>
12 13	+	113 	X +	 ++
14	1	127	x	! !
15 16		131	X	
17 18	+	137	+ X	++
19	+		+	++
20 21	+	139 	X +	 ++
22	1	149	l x	1
23 24		151	+ x	
25 26	+	 153	+ I	++ X
27	+		! +	<u> </u>
28 29	+	157	x +	 ++
30	1	163	x	! !
31 32		167	+ x	
33 34	+	173	+ X	++ I I
35	+		+	<u>+</u>
36 37	+	179 	X +	 ++
38	1	181	x	! !
39 40		191	+ X	
41 42	+	 193	+ X	++ I I
43	+		+	++
44 45	+	197 	x +	
46	1	199	x x	l l
47 48		211	+ X	
49	+		+	++
50		223	x	

51 52	227	X	
53 54	+	X	-+
55	+	·	-++
56 57	233	Х	1 1
58	239	X	
59 60	+	X	-+
61	+		-++
62 63	251	X	
64	257	Х	i i
65 66	263	Х	
67	+		-+
68 69	269 +	X 	
70 71	271	Х	1 1
72	277	Х	i i
73 74	+	X	-+
75	+		-++
76 77	283	X	
78	293	Х	i i
79 80	+	X	
81	+		-+
82 83	311	X 	
84	313	Х	1 1
85 86	317	Х	
87	+	+ v	-+
88 89	331	X	
90	337	х	1
91 92	347	X	
93	+		-++
94 95	349	X	
96	353	Х	İ
97	+	v	-++
98 99	359 +	X	-+
100	367	X	T

101	+		+		+	+
102	1	370	l l		1	х
103	+		+		+	
104		371				x
105	+		+		+	+
106		373	l	X		
107	+		+		+	+
108		379	<u> </u>	X	 -	!
109110	1	383	+ 	X	+ 	+
111	+		 +	^	 +	 +
112	i	389	i	X	i	i
113	+		+		+	+
114		397	I	Χ		
115	+		+		+	+
116		401	l	X	1	
117	+		+		+	+
118		407	I		l	х
119	+	400	+ I		+ I	+ I
120 121	 	409	 +	X	 +	 -
122		419	 	X	 	
123	+		' +		' +	+
124		421	l l	Χ		
125	+		+		+	+
126		431	l	X	1	
127	+		+		+	+
128		433	I .	X	 -	1
129130	+	439	+ 	X	+ 	+
131	+	433	 +	^	 +	 +
132	i	443	i	X	i	i
133	+		+		+	· +
134		449	l l	Χ		
135	+		+		+	+
136		457		X	T	
137	+		+		+	+
138		461		X		
139	+	462	+ I	· · · · · · · · · · · · · · · · · · ·	+ -	+ I
140		463	T	X	Τ	

141	+	+	++
142	467	x	1
143	+	+	++
144	479	X	
145	+	+	++
146	487	X	
147	+	+	++
148	491	x	
149	+	+	++
150	499	x	
151	+	+	++

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Between 100 and 500, 70 Prime numbers were found.

Between 100 and 500, 4 Armstrong numbers were found.

Between 100 and 500, 0 numbers were both Prime and Armstrong numbers.
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Question 3

Please enter the number of minutes to prepare the first dish: 6

How many more minutes are required for the next dish? 4

Enter the total time (in minutes) available to prepare all dishes: 57

In 57 minutes the pastry cook can prepare 4 dishes with 9 minutes unused.

Question 4

Enter the current price of the item: 33.95

Enter the price of the item from one year ago: 36.99

Enter the price of the item from two years ago: 40.99

The current years inflation rate is: -0.08

The inflation one year ago was: -0.10

Inflation is increasing.