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1	[dshin@acacia classes]\$ classes -t /home/pl/hw10/tests/colorpoint	
2	Welcome to MzScheme v370 [3m], Copyright (c) 2004-2007 PLT Scheme Inc.	
3	> % =====	
4	% inheritance example: colorpoint. (value=((6 8) (20 40) 87))	
5		
6	class point extends object	
7	field x	
8	field y	
9	method initialize(initx,inity)	
10	begin	
11	set x=initx;	
12	set y=inity	
13	end	
14	method move(dx,dy)	
15	begin	
16	set x+=(x,dx);	
17	set y+=(y,dy)	
18	end	
19	method get-location() list(x,y)	
20		
21	class colorpoint extends point	
22	field color	
23	method set-color(c) set color=c	
24	method get-color() color	
25		
26	let p=new point(3,4)	
27	cp=new colorpoint(10,20)	
28	in begin	
29	send p move(3,4);	
30	send cp set-color(87);	
31	send cp move(10,20);	
32	list(send p get-location(),	
33	send cp get-location(),	
34	send cp get-color())	
35	end	
36		
37	% =====	
38	+ exp=let p=new point(3,4) cp=new colorpoint(10,20) in begin send p move(3,4);s	
39	end cp set-color(87);send cp move(10,20);list(send p get-location()),send cp get-	
40	location(),send cp get-color()) end	
41	env=[], sto=()	
42	+ exp=new point(3,4)	
43	env=[], sto=()	
44	+ exp=3	
45	env=[], sto=()	
46	- val=3	
47	+ exp=4	
48	env=[], sto=()	
49	- val=4	
50	+ exp=begin set x=initx;set y=inity end	
51	env=[initx=2,inity=3,self=point(0 1),super=object,x=0,y=1], sto=(0,0,3,4)	
52	+ exp=set x=initx	
53	env=[initx=2,inity=3,self=point(0 1),super=object,x=0,y=1], sto=(0,0,3,4)	
54	- val=3	
55	- val=3	
56	+ exp=set y=inity	
57	env=[initx=2,inity=3,self=point(0 1),super=object,x=0,y=1], sto=(3,0,3,4)	
58	+ exp=inity	
59	env=[initx=2,inity=3,self=point(0 1),super=object,x=0,y=1], sto=(3,0,3,4)	
60	- val=4	
61	- val=4	
62	- val=4	
63	- val=point(0 1)	
64	+ exp=new colorpoint(10,20)	

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65	env=[], sto=(3,4,3,4)	
66	+ exp=10	
67	env=[], sto=(3,4,3,4)	
68	- val=10	
69	+ exp=20	
70	env=[], sto=(3,4,3,4)	
71	- val=20	
72	+ exp=begin set x=initx;set y=inity end	
73	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3,4	
74	,3,4,0,0,0,10,20)	
75	+ exp=set x=initx	
76	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3,	
77	4,3,4,0,0,0,10,20)	
78	+ exp=inity	
79	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
80	,4,3,4,0,0,0,10,20)	
81	+ exp=initx	
82	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
83	,4,3,4,10,0,0,10,20)	
84	+ exp=inity	
85	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
86	,4,3,4,10,0,0,10,20)	
87	+ exp=initx	
88	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
89	,4,3,4,10,0,0,10,20)	
90	+ exp=inity	
91	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
92	,4,3,4,10,0,0,10,20)	
93	+ exp=initx	
94	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
95	,4,3,4,10,0,0,10,20)	
96	+ exp=inity	
97	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
98	,4,3,4,10,0,0,10,20)	
99	+ exp=initx	
100	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
101	,4,3,4,10,0,0,10,20)	
102	+ exp=inity	
103	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
104	,4,3,4,10,0,0,10,20)	
105	+ exp=initx	
106	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
107	,4,3,4,10,0,0,10,20)	
108	+ exp=inity	
109	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
110	,4,3,4,10,0,0,10,20)	
111	+ exp=initx	
112	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
113	,4,3,4,10,0,0,10,20)	
114	+ exp=inity	
115	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
116	,4,3,4,10,0,0,10,20)	
117	+ exp=initx	
118	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
119	,4,3,4,10,0,0,10,20)	
120	+ exp=inity	
121	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
122	,4,3,4,10,0,0,10,20)	
123	+ exp=initx	
124	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
125	,4,3,4,10,0,0,10,20)	
126	+ exp=inity	
127	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
128	,4,3,4,10,0,0,10,20)	
129	+ exp=initx	
130	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
131	,4,3,4,10,0,0,10,20)	
132	+ exp=inity	
133	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
134	,4,3,4,10,0,0,10,20)	
135	+ exp=initx	
136	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
137	,4,3,4,10,0,0,10,20)	
138	+ exp=inity	
139	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
140	,4,3,4,10,0,0,10,20)	
141	+ exp=initx	
142	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
143	,4,3,4,10,0,0,10,20)	
144	+ exp=inity	
145	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
146	,4,3,4,10,0,0,10,20)	
147	+ exp=initx	
148	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
149	,4,3,4,10,0,0,10,20)	
150	+ exp=inity	
151	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
152	,4,3,4,10,0,0,10,20)	
153	+ exp=initx	
154	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
155	,4,3,4,10,0,0,10,20)	
156	+ exp=inity	
157	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
158	,4,3,4,10,0,0,10,20)	
159	+ exp=initx	
160	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
161	,4,3,4,10,0,0,10,20)	
162	+ exp=inity	
163	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
164	,4,3,4,10,0,0,10,20)	
165	+ exp=initx	
166	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
167	,4,3,4,10,0,0,10,20)	
168	+ exp=inity	
169	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
170	,4,3,4,10,0,0,10,20)	
171	+ exp=initx	
172	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
173	,4,3,4,10,0,0,10,20)	
174	+ exp=inity	
175	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
176	,4,3,4,10,0,0,10,20)	
177	+ exp=initx	
178	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
179	,4,3,4,10,0,0,10,20)	
180	+ exp=inity	
181	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
182	,4,3,4,10,0,0,10,20)	
183	+ exp=initx	
184	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
185	,4,3,4,10,0,0,10,20)	
186	+ exp=inity	
187	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
188	,4,3,4,10,0,0,10,20)	
189	+ exp=initx	
190	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
191	,4,3,4,10,0,0,10,20)	
192	+ exp=inity	
193	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
194	,4,3,4,10,0,0,10,20)	
195	+ exp=initx	
196	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
197	,4,3,4,10,0,0,10,20)	
198	+ exp=inity	
199	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
200	,4,3,4,10,0,0,10,20)	
201	+ exp=initx	
202	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
203	,4,3,4,10,0,0,10,20)	
204	+ exp=inity	
205	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
206	,4,3,4,10,0,0,10,20)	
207	+ exp=initx	
208	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
209	,4,3,4,10,0,0,10,20)	
210	+ exp=inity	
211	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
212	,4,3,4,10,0,0,10,20)	
213	+ exp=initx	
214	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
215	,4,3,4,10,0,0,10,20)	
216	+ exp=inity	
217	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
218	,4,3,4,10,0,0,10,20)	
219	+ exp=initx	
220	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
221	,4,3,4,10,0,0,10,20)	
222	+ exp=inity	
223	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
224	,4,3,4,10,0,0,10,20)	
225	+ exp=initx	
226	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
227	,4,3,4,10,0,0,10,20)	
228	+ exp=inity	
229	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
230	,4,3,4,10,0,0,10,20)	
231	+ exp=initx	
232	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
233	,4,3,4,10,0,0,10,20)	
234	+ exp=inity	
235	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
236	,4,3,4,10,0,0,10,20)	
237	+ exp=initx	
238	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
239	,4,3,4,10,0,0,10,20)	
240	+ exp=inity	
241	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
242	,4,3,4,10,0,0,10,20)	
243	+ exp=initx	
244	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
245	,4,3,4,10,0,0,10,20)	
246	+ exp=inity	
247	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
248	,4,3,4,10,0,0,10,20)	
249	+ exp=initx	
250	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
251	,4,3,4,10,0,0,10,20)	
252	+ exp=inity	
253	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
254	,4,3,4,10,0,0,10,20)	
255	+ exp=initx	
256	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
257	,4,3,4,10,0,0,10,20)	
258	+ exp=inity	
259	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
260	,4,3,4,10,0,0,10,20)	
261	+ exp=initx	
262	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
263	,4,3,4,10,0,0,10,20)	
264	+ exp=inity	
265	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
266	,4,3,4,10,0,0,10,20)	
267	+ exp=initx	
268	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
269	,4,3,4,10,0,0,10,20)	
270	+ exp=inity	
271	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
272	,4,3,4,10,0,0,10,20)	
273	+ exp=initx	
274	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
275	,4,3,4,10,0,0,10,20)	
276	+ exp=inity	
277	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
278	,4,3,4,10,0,0,10,20)	
279	+ exp=initx	
280	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
281	,4,3,4,10,0,0,10,20)	
282	+ exp=inity	
283	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
284	,4,3,4,10,0,0,10,20)	
285	+ exp=initx	
286	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
287	,4,3,4,10,0,0,10,20)	
288	+ exp=inity	
289	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
290	,4,3,4,10,0,0,10,20)	
291	+ exp=initx	
292	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
293	,4,3,4,10,0,0,10,20)	
294	+ exp=inity	
295	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
296	,4,3,4,10,0,0,10,20)	
297	+ exp=initx	
298	env=[initx=7,inity=8,self=colorpoint(4 5 6),super=object,x=4,y=5], sto=(3	
299	,4,3,4,10,0,0,10,20)	

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218	env=[p=9,cp=10], sto=(6,8,3,4,20,40,87,10,20,point(0 1),colorpoint(4 5 6),3,4,87,10,20)	
219	val=colorpoint(4 5 6)	
220	+ exp=color	
221	env=[self=colorpoint(4 5 6),super=point,x=4,y=5,color=6], sto=(6,8,3,4,20,40,87,10,20,point(0 1),colorpoint(4 5 6),3,4,87,10,20)	
222	val=87	
223	val=87	
224	val=((6 8) (20 40) 87)	
225	val=((6 8) (20 40) 87)	
226	val=((6 8) (20 40) 87)	
227	((6 8) (20 40) 87)	
228	>	
229	[dshin@acacia classes]\$ classes -t /home/pl/hw10/tests/dynamic	
230	Welcome to MzScheme v370 [3m], Copyright (c) 2004-2007 PLT Scheme Inc.	
231	> % =====	
232	% dynamic method dispatching. (value=12)	
233		
234	class interior-node extends object	
235	field left	
236	field right	
237	method initialize(l,r)	
238	begin	
239	set left=l;	
240	set right=r	
241	end	
242	method sum() +(send left sum(),send right sum())	
243		
244	class leaf-node extends object	
245	field value	
246	method initialize(v) set value=v	
247	method sum() value	
248		
249	let ol=new interior-node(
250	new interior-node(
251	new leaf-node(3),	
252	new leaf-node(4)),	
253	new leaf-node(5))	
254	in send ol sum()	
255		
256	% =====	
257	+ exp=let ol=new interior-node(new interior-node(new leaf-node(3),new leaf-node(4)),new leaf-node(5)) in send ol sum()	
258	env=[], sto=()	
259	+ exp=new interior-node(new interior-node(new leaf-node(3),new leaf-node(4)),new leaf-node(5))	
260	env=[], sto=()	
261	+ exp=new interior-node(new leaf-node(3),new leaf-node(4))	
262	env=[], sto=()	
263	+ exp=new leaf-node(3)	
264	env=[], sto=()	
265	+ exp=3	
266	env=[], sto=()	
267	val=3	
268	+ exp=set value=v	
269	env=[v=1,self=leaf-node(0),super=object,value=0], sto=(0,3)	
270	+ exp=v	
271	env=[v=1,self=leaf-node(0),super=object,value=0], sto=(0,3)	
272	val=3	
273	val=3	
274	val=leaf-node(0)	
275	+ exp=new leaf-node(4)	
276	env=[], sto=(3,3)	
277	+ exp=4	
278	env=[], sto=(3,3)	
279	val=4	

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280	+ exp=set value=v	
281	env=[v=3,self=leaf-node(2),super=object,value=2], sto=(3,3,0,4)	
282	+ exp=v	
283	env=[v=3,self=leaf-node(2),super=object,value=2], sto=(3,3,0,4)	
284	val=4	
285	val=4	
286	val=leaf-node(2)	
287	+ exp=begin set left=l;set right=r end	
288	env=[l=6,r=7,self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,0,0,leaf-node(0),leaf-node(2))	
289	+ exp=set left=l	
290	env=[l=6,r=7,self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,0,0,leaf-node(0),leaf-node(2))	
291	+ exp=l	
292	env=[l=6,r=7,self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,0,0,leaf-node(0),leaf-node(2))	
293	val=leaf-node(0)	
294	val=leaf-node(0)	
295	+ exp=set right=r	
296	env=[l=6,r=7,self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,leaf-node(0),0,leaf-node(0),leaf-node(2))	
297	+ exp=r	
298	env=[l=6,r=7,self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,leaf-node(0),0,leaf-node(0),leaf-node(2))	
299	val=leaf-node(2)	
300	val=leaf-node(2)	
301	val=leaf-node(2)	
302	val=interior-node(4 5)	
303	+ exp=new leaf-node(5)	
304	env=[], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2))	
305	+ exp=5	
306	env=[], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2))	
307	val=5	
308	+ exp=set value=v	
309	env=[v=9,self=leaf-node(8),super=object,value=8], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),0,5)	
310	+ exp=v	
311	env=[v=9,self=leaf-node(8),super=object,value=8], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),0,5)	
312	val=5	
313	val=5	
314	val=leaf-node(8)	
315	+ exp=begin set left=l;set right=r end	
316	env=[l=12,r=13,self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,0,0,interior-node(4 5),leaf-node(8))	
317	+ exp=set left=l	
318	env=[l=12,r=13,self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,0,0,interior-node(4 5),leaf-node(8))	
319	+ exp=l	
320	env=[l=12,r=13,self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,0,0,interior-node(4 5),leaf-node(8))	
321	val=interior-node(4 5)	
322	val=interior-node(4 5)	
323	+ exp=set right=r	
324	env=[l=12,r=13,self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),0,interior-node(4 5),leaf-node(8))	
325	+ exp=r	
326	env=[l=12,r=13,self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),0,interior-node(4 5),leaf-node(8))	
327	val=leaf-node(8)	
328	val=leaf-node(8)	

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329	- val=leaf-node(8)	
330	- val=interior-node(10 11)	
331	+ exp=send o1 sum()	
332	env=[ol=14], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
333	+ exp=ol	
334	env=[ol=14], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
335	- val=interior-node(10 11)	
336	+ exp+=(send left sum(),send right sum())	
337	env=[self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
338	+ exp=send left sum()	
339	env=[self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
340	+ exp=left	
341	env=[self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
342	val=interior-node(4 5)	
343	+ exp+=(send left sum(),send right sum())	
344	env=[self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
345	+ exp=send left sum()	
346	env=[self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
347	+ exp=left	
348	env=[self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
349	val=leaf-node(0)	
350	+ exp=value	
351	env=[self=leaf-node(0),super=object,value=0], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
352	val=3	
353	val=3	
354	+ exp=send right sum()	
355	env=[self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
356	+ exp=right	
357	env=[self=interior-node(4 5),super=object,left=4,right=5], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
358	val=leaf-node(2)	
359	+ exp=value	
360	env=[self=leaf-node(2),super=object,value=2], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
361	val=4	
362	val=4	
363	val=7	
364	val=7	
365	+ exp=send right sum()	
366	env=[self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
367	+ exp=right	
368	env=[self=interior-node(10 11),super=object,left=10,right=11], sto=(3,3,4	

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	,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
369	- val=leaf-node(8)	
370	+ exp=value	
371	env=[self=leaf-node(8),super=object,value=8], sto=(3,3,4,4,leaf-node(0),leaf-node(2),leaf-node(0),leaf-node(2),5,5,interior-node(4 5),leaf-node(8),interior-node(4 5),leaf-node(8),interior-node(10 11))	
372	- val=5	
373	- val=5	
374	- val=12	
375	- val=12	
376	- val=12	
377	12	
378	>	
379	[dshin@acacia classes]\$ classes -t /home/pl/hw10/tests/override	
380	Welcome to MzScheme v370 [3m], Copyright (c) 2004-2007 PLT Scheme Inc.	
381	> % =====	
382	% method overriding and self example. (value=(11 22 22))	
383		
384	class c1 extends object	
385	method initialize() 1	
386	method m1() 11	
387	method m2() send self m1()	
388		
389	class c2 extends c1	
390	method m1() 22	
391		
392	let o1=new c1()	
393	o2=new c2()	
394	in list(send o1 m1(),	
395	send o2 m1(),	
396	send o2 m2())	
397		
398	% =====	
399	+ exp=let o1=new c1() o2=new c2() in list(send o1 m1(),send o2 m1(),send o2 m2())	
400	env=[], sto=()	
401	+ exp=new c1()	
402	env=[], sto=()	
403	+ exp=1	
404	env=[self=c1(),super=object], sto=()	
405	val=1	
406	val=c1()	
407	+ exp=new c2()	
408	env=[], sto=()	
409	+ exp=1	
410	env=[self=c2(),super=object], sto=()	
411	val=1	
412	val=c2()	
413	+ exp=list(send o1 m1(),send o2 m1(),send o2 m2())	
414	env=[ol=0,o2=1], sto=(c1(),c2())	
415	+ exp=send o1 m1()	
416	env=[ol=0,o2=1], sto=(c1(),c2())	
417	+ exp=ol	
418	env=[ol=0,o2=1], sto=(c1(),c2())	
419	val=c1()	
420	+ exp=11	
421	env=[self=c1(),super=object], sto=(c1(),c2())	
422	val=11	
423	val=11	
424	+ exp=send o2 m1()	
425	env=[ol=0,o2=1], sto=(c1(),c2())	
426	+ exp=o2	
427	env=[ol=0,o2=1], sto=(c1(),c2())	
428	val=c2()	
429	+ exp=22	

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430	env=[self=c2(),super=c1], sto=(c1(),c2())	
431	- val=22	
432	- val=22	
433	+ exp=send o2 m2()	
434	env=[o1=0,o2=1], sto=(c1(),c2())	
435	+ exp=o2	
436	env=[o1=0,o2=1], sto=(c1(),c2())	
437	- val=c2()	
438	+ exp=send self m1()	
439	env=[self=c2(),super=object], sto=(c1(),c2())	
440	+ exp=self	
441	env=[self=c2(),super=object], sto=(c1(),c2())	
442	- val=c2()	
443	+ exp=22	
444	env=[self=c2(),super=c1], sto=(c1(),c2())	
445	- val=22	
446	- val=22	
447	- val=22	
448	- val=(11 22 22)	
449	- val=(11 22 22)	
450	(11 22 22)	
451	>	
452	[dshin@acacia classes]\$ classes -t /home/pl/hw10/tests/shadow	
453	Welcome to MzScheme v370 [3m], Copyright (c) 2004-2007 PLT Scheme Inc.	
454	> % =====	
455	% field shadowing example. (value=(101 102 101 999))	
456		
457	class c1 extends object	
458	field x	
459	field y	
460	method initialize() 1	
461	method setx1(v) set x=v	
462	method sety1(v) set y=v	
463	method getx1() x	
464	method gety1() y	
465		
466	class c2 extends c1	
467	field y	
468	method sety2(v) set y=v	
469	method getx2() x	
470	method gety2() y	
471		
472	let o2=new c2()	
473	in begin	
474	send o2 setx1(101);	
475	send o2 sety1(102);	
476	send o2 sety2(999);	
477	list(send o2 getx1(), send o2 gety1(),	
478	send o2 getx2(), send o2 gety2())	
479	end	
480		
481	% =====	
482	+ exp=let o2=new c2() in begin send o2 setx1(101);send o2 sety1(102);send o2 sety2(999);list(send o2 getx1(),send o2 gety1(),send o2 getx2(),send o2 gety2()) end	
483	env=[], sto=()	
484	+ exp=new c2()	
485	env=[], sto=()	
486	+ exp=1	
487	env=[self=c2(0 1 2),super=object,x=0,y=1], sto=(0,0,0)	
488	- val=1	
489	- val=c2(0 1 2)	
490	+ exp=begin send o2 setx1(101);send o2 sety1(102);send o2 sety2(999);list(send o2 getx1(),send o2 gety1(),send o2 getx2(),send o2 gety2()) end	
491	env=[o2=3], sto=(0,0,0,c2(0 1 2))	
492	+ exp=send o2 setx1(101)	

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493	env=[o2=3], sto=(0,0,0,c2(0 1 2))	
494	+ exp=101	
495	env=[o2=3], sto=(0,0,0,c2(0 1 2))	
496	- val=101	
497	+ exp=o2	
498	env=[o2=3], sto=(0,0,0,c2(0 1 2))	
499	- val=c2(0 1 2)	
500	+ exp=set x=v	
501	env=[v=4,self=c2(0 1 2),super=object,x=0,y=1], sto=(0,0,0,c2(0 1 2),101)	
502	+ exp=v	
503	env=[v=4,self=c2(0 1 2),super=object,x=0,y=1], sto=(0,0,0,c2(0 1 2),101)	
504	- val=101	
505	- val=101	
506	- val=101	
507	+ exp=send o2 sety1(102)	
508	env=[o2=3], sto=(101,0,0,c2(0 1 2),101)	
509	+ exp=102	
510	env=[o2=3], sto=(101,0,0,c2(0 1 2),101)	
511	- val=102	
512	+ exp=o2	
513	env=[o2=3], sto=(101,0,0,c2(0 1 2),101)	
514	- val=c2(0 1 2)	
515	+ exp=set y=v	
516	env=[v=5,self=c2(0 1 2),super=object,x=0,y=1], sto=(101,0,0,c2(0 1 2),101,102)	
517	+ exp=v	
518	env=[v=5,self=c2(0 1 2),super=object,x=0,y=1], sto=(101,0,0,c2(0 1 2),101,102)	
519	- val=102	
520	- val=102	
521	- val=102	
522	+ exp=send o2 sety2(999)	
523	env=[o2=3], sto=(101,102,0,c2(0 1 2),101,102)	
524	+ exp=999	
525	env=[o2=3], sto=(101,102,0,c2(0 1 2),101,102)	
526	- val=999	
527	+ exp=o2	
528	env=[o2=3], sto=(101,102,0,c2(0 1 2),101,102)	
529	- val=c2(0 1 2)	
530	+ exp=set y=v	
531	env=[v=6,self=c2(0 1 2),super=c1,x=0,y%1=1,y=2], sto=(101,102,0,c2(0 1 2),101,102,999)	
532	+ exp=v	
533	env=[v=6,self=c2(0 1 2),super=c1,x=0,y%1=1,y=2], sto=(101,102,0,c2(0 1 2),101,102,999)	
534	- val=999	
535	- val=999	
536	- val=999	
537	+ exp=list(send o2 getx1(),send o2 gety1(),send o2 getx2(),send o2 gety2())	
538	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
539	+ exp=send o2 getx1()	
540	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
541	+ exp=o2	
542	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
543	- val=c2(0 1 2)	
544	+ exp=x	
545	env=[self=c2(0 1 2),super=object,x=0,y=1], sto=(101,102,999,c2(0 1 2),101,102,999)	
546	- val=101	
547	- val=101	
548	+ exp=send o2 gety1()	
549	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
550	+ exp=o2	
551	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
552	- val=c2(0 1 2)	
553	+ exp=y	

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554	env=[self=c2(0 1 2),super=object,x=0,y=1], sto=(101,102,999,c2(0 1 2),101,102,999)	
555	val=102	
556	val=102	
557	exp=send o2 getx2()	
558	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
559	exp=o2	
560	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
561	val=c2(0 1 2)	
562	exp=x	
563	env=[self=c2(0 1 2),super=c1,x=0,y%1=1,y=2], sto=(101,102,999,c2(0 1 2),101,102,999)	
564	val=101	
565	val=101	
566	exp=send o2 gety2()	
567	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
568	exp=o2	
569	env=[o2=3], sto=(101,102,999,c2(0 1 2),101,102,999)	
570	val=c2(0 1 2)	
571	exp=y	
572	env=[self=c2(0 1 2),super=c1,x=0,y%1=1,y=2], sto=(101,102,999,c2(0 1 2),101,102,999)	
573	val=999	
574	val=999	
575	val=(101 102 101 999)	
576	val=(101 102 101 999)	
577	val=(101 102 101 999)	
578	(101 102 101 999)	
579	>	
580	[dshin@acacia classes]\$ classes -t /home/pl/hw10/tests/simple	
581	Welcome to MzScheme v370 [3m], Copyright (c) 2004-2007 PLT Scheme Inc.	
582	> % =====	
583	% a simple object-oriented program. (value=((3 -3)(5 -5)))	
584		
585	class c1 extends object	
586	field i	
587	field j	
588	method initialize(x)	
589	begin	
590	set i=x;	
591	set j=-(0,x)	
592	end	
593	method countup(d)	
594	begin	
595	set i=+(i,d);	
596	set j=-(j,d)	
597	end	
598	method getstate() list(i,j)	
599		
600	let t1=0	
601	t2=0	
602	o1=new c1(3)	
603	in begin	
604	set t1=send o1 getstate();	
605	send o1 countup(2);	
606	set t2=send o1 getstate();	
607	list(t1,t2)	
608	end	
609		
610	% =====	
611	+ exp=let t1=0 t2=0 o1=new c1(3) in begin set t1=send o1 getstate();send o1 countup(2);set t2=send o1 getstate();list(t1,t2) end	
612	env=[], sto=()	
613	+ exp=0	
614	env=[], sto=()	
615	- val=0	

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616	+ exp=0	
617	env=[], sto=()	
618	- val=0	
619	+ exp=new c1(3)	
620	env=[], sto=()	
621	+ exp=3	
622	env=[], sto=()	
623	- val=3	
624	+ exp=begin set i=x;set j=-(0,x) end	
625	env=[x=2,self=c1(0 1),super=object,i=0,j=1], sto=(0,0,3)	
626	+ exp=set i=x	
627	env=[x=2,self=c1(0 1),super=object,i=0,j=1], sto=(0,0,3)	
628	+ exp=x	
629	env=[x=2,self=c1(0 1),super=object,i=0,j=1], sto=(0,0,3)	
630	val=3	
631	val=3	
632	+ exp=set j=-(0,x)	
633	env=[x=2,self=c1(0 1),super=object,i=0,j=1], sto=(3,0,3)	
634	+ exp=-(0,x)	
635	env=[x=2,self=c1(0 1),super=object,i=0,j=1], sto=(3,0,3)	
636	+ exp=0	
637	env=[x=2,self=c1(0 1),super=object,i=0,j=1], sto=(3,0,3)	
638	val=0	
639	+ exp=x	
640	env=[x=2,self=c1(0 1),super=object,i=0,j=1], sto=(3,0,3)	
641	val=3	
642	val=-3	
643	- val=-3	
644	val=-3	
645	- val=c1(0 1)	
646	+ exp=begin set t1=send o1 getstate();send o1 countup(2);set t2=send o1 getstate();list(t1,t2) end	
647	env=[t1=3,t2=4,o1=5], sto=(3,-3,3,0,0,c1(0 1))	
648	+ exp=set t1=send o1 getstate()	
649	env=[t1=3,t2=4,o1=5], sto=(3,-3,3,0,0,c1(0 1))	
650	+ exp=send o1 getstate()	
651	env=[t1=3,t2=4,o1=5], sto=(3,-3,3,0,0,c1(0 1))	
652	+ exp=o1	
653	env=[t1=3,t2=4,o1=5], sto=(3,-3,3,0,0,c1(0 1))	
654	val=c1(0 1)	
655	+ exp=list(i,j)	
656	env=[self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,0,0,c1(0 1))	
657	+ exp=i	
658	env=[self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,0,0,c1(0 1))	
659	val=3	
660	+ exp=j	
661	env=[self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,0,0,c1(0 1))	
662	val=-3	
663	val=(3 -3)	
664	- val=(3 -3)	
665	val=(3 -3)	
666	+ exp=send o1 countup(2)	
667	env=[t1=3,t2=4,o1=5], sto=(3,-3,3,(3 -3),0,c1(0 1))	
668	+ exp=2	
669	env=[t1=3,t2=4,o1=5], sto=(3,-3,3,(3 -3),0,c1(0 1))	
670	- val=2	
671	+ exp=o1	
672	env=[t1=3,t2=4,o1=5], sto=(3,-3,3,(3 -3),0,c1(0 1))	
673	- val=c1(0 1)	
674	+ exp=begin set i=+(i,d);set j=-(j,d) end	
675	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,(3 -3),0,c1(0 1),2)	
676	+ exp=set i=+(i,d)	
677	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,(3 -3),0,c1(0 1),2)	
678	+ exp=+(i,d)	

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679	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,(3 -3),0,c1(0 1),2)	
680	+ exp=i	
681	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,(3 -3),0,c1(0 1),2)	
682	- val=3	
683	+ exp=d	
684	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(3,-3,3,(3 -3),0,c1(0 1),2)	
685	- val=2	
686	- val=5	
687	- val=5	
688	+ exp=set j=-(j,d)	
689	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(5,-3,3,(3 -3),0,c1(0 1),2)	
690	+ exp=-(j,d)	
691	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(5,-3,3,(3 -3),0,c1(0 1),2)	
692	+ exp=j	
693	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(5,-3,3,(3 -3),0,c1(0 1),2)	
694	- val=-3	
695	+ exp=d	
696	env=[d=6,self=c1(0 1),super=object,i=0,j=1], sto=(5,-3,3,(3 -3),0,c1(0 1),2)	
697	- val=2	
698	- val=-5	
699	- val=-5	
700	- val=-5	
701	- val=-5	
702	+ exp=set t2=send o1 getstate()	
703	env=[t1=3,t2=4,o1=5], sto=(5,-5,3,(3 -3),0,c1(0 1),2)	
704	+ exp=send o1 getstate()	
705	env=[t1=3,t2=4,o1=5], sto=(5,-5,3,(3 -3),0,c1(0 1),2)	
706	+ exp=o1	
707	env=[t1=3,t2=4,o1=5], sto=(5,-5,3,(3 -3),0,c1(0 1),2)	
708	- val=c1(0 1)	
709	+ exp=list(i,j)	
710	env=[self=c1(0 1),super=object,i=0,j=1], sto=(5,-5,3,(3 -3),0,c1(0 1),2)	
711	+ exp=i	
712	env=[self=c1(0 1),super=object,i=0,j=1], sto=(5,-5,3,(3 -3),0,c1(0 1),2)	
713	- val=5	
714	+ exp=j	
715	env=[self=c1(0 1),super=object,i=0,j=1], sto=(5,-5,3,(3 -3),0,c1(0 1),2)	
716	- val=-5	
717	- val=(5 -5)	
718	- val=(5 -5)	
719	- val=(5 -5)	
720	+ exp=list(t1,t2)	
721	env=[t1=3,t2=4,o1=5], sto=(5,-5,3,(3 -3),(5 -5),c1(0 1),2)	
722	+ exp=t1	
723	env=[t1=3,t2=4,o1=5], sto=(5,-5,3,(3 -3),(5 -5),c1(0 1),2)	
724	- val=(3 -3)	
725	+ exp=t2	
726	env=[t1=3,t2=4,o1=5], sto=(5,-5,3,(3 -3),(5 -5),c1(0 1),2)	
727	- val=(5 -5)	
728	- val=((3 -3) (5 -5))	
729	- val=((3 -3) (5 -5))	
730	- val=((3 -3) (5 -5))	
731	((3 -3) (5 -5))	
732	>	
733	[dshin@acacia classes]\$ classes -t /home/pl/hw10/tests/super	
734	Welcome to MzScheme v370 [3m], Copyright (c) 2004-2007 PLT Scheme Inc.	
735	> % =====	
736	% super example. (value=172)	
737		

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738	class point extends object	
739	field x	
740	field y	
741	method initialize(initx,inity)	
742	begin	
743	set x=initx;	
744	set y=inity	
745	end	
746	method move(dx,dy)	
747	begin	
748	set x+=(x,dx);	
749	set y+=(y,dy)	
750	end	
751	method get-location() list(x,y)	
752		
753	class colorpoint extends point	
754	field color	
755	method initialize(initx,inity,initcolor)	
756	begin	
757	super initialize(initx,inity);	
758	set color=initcolor	
759	end	
760	method set-color(c) set color=c	
761	method get-color() color	
762		
763	let o1=new colorpoint(3,4,172)	
764	in send o1 get-color()	
765		
766	% =====	
767	+ exp=let o1=new colorpoint(3,4,172) in send o1 get-color()	
768	env=[], sto=()	
769	+ exp=new colorpoint(3,4,172)	
770	env=[], sto=()	
771	+ exp=3	
772	env=[], sto=()	
773	- val=3	
774	+ exp=4	
775	env=[], sto=()	
776	- val=4	
777	+ exp=172	
778	env=[], sto=()	
779	- val=172	
780	+ exp=begin super initialize(initx,inity);set color=initcolor end	
781	env=[initx=3,inity=4,initcolor=5,self=colorpoint(0 1 2),super=point,x=0,y=1,color=2], sto=(0,0,0,3,4,172)	
782	+ exp=super initialize(initx,inity)	
783	env=[initx=3,inity=4,initcolor=5,self=colorpoint(0 1 2),super=point,x=0,y=1,color=2], sto=(0,0,0,3,4,172)	
784	+ exp=initx	
785	env=[initx=3,inity=4,initcolor=5,self=colorpoint(0 1 2),super=point,x=0,y=1,color=2], sto=(0,0,0,3,4,172)	
786	- val=3	
787	+ exp=inity	
788	env=[initx=3,inity=4,initcolor=5,self=colorpoint(0 1 2),super=point,x=0,y=1,color=2], sto=(0,0,0,3,4,172)	
789	- val=4	
790	+ exp=begin set x=initx;set y=inity end	
791	env=[initx=6,inity=7,self=colorpoint(0 1 2),super=object,x=0,y=1], sto=(0,0,0,3,4,172,3,4)	
792	+ exp=set x=initx	
793	env=[initx=6,inity=7,self=colorpoint(0 1 2),super=object,x=0,y=1], sto=(0,0,0,3,4,172,3,4)	
794	+ exp=initx	
795	env=[initx=6,inity=7,self=colorpoint(0 1 2),super=object,x=0,y=1], sto=(0,0,0,3,4,172,3,4)	
796	+ exp=initx	

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```

797 |----- val=3
798 |-----+ exp=set y=inity
799 |----- env=[initx=6,inity=7,self=colorpoint(0 1 2),super=object,x=0,y=1], sto=(
    |3,0,0,3,4,172,3,4)
800 |-----+ exp=inity
801 |----- env=[initx=6,inity=7,self=colorpoint(0 1 2),super=object,x=0,y=1], sto=
    |3,0,0,3,4,172,3,4)
802 |----- val=4
803 |----- val=4
804 |----- val=4
805 |----- val=4
806 |-----+ exp=set color=initcolor
807 |----- env=[initx=3,inity=4,initcolor=5,self=colorpoint(0 1 2),super=point,x=0,y=
    |1,color=2], sto=(3,4,0,3,4,172,3,4)
808 |-----+ exp=initcolor
809 |----- env=[initx=3,inity=4,initcolor=5,self=colorpoint(0 1 2),super=point,x=0,y
    |=1,color=2], sto=(3,4,0,3,4,172,3,4)
810 |----- val=172
811 |----- val=172
812 |----- val=172
813 |----- val=colorpoint(0 1 2)
814 |-----+ exp=send ol get-color()
815 |----- env=[ol=8], sto=(3,4,172,3,4,172,3,4,colorpoint(0 1 2))
816 |-----+ exp=ol
817 |----- env=[ol=8], sto=(3,4,172,3,4,172,3,4,colorpoint(0 1 2))
818 |----- val=colorpoint(0 1 2)
819 |-----+ exp=color
820 |----- env=[self=colorpoint(0 1 2),super=point,x=0,y=1,color=2], sto=(3,4,172,3,4,
    |172,3,4,colorpoint(0 1 2))
821 |----- val=172
822 |----- val=172
823 |----- val=172
824 |172
825 |>
826 [dshin@acacia classes]$

```