

**Supplementary table 2.** the flower color  $L^*$ ,  $a^*$ ,  $b^*$ ,  $C^*$ ,  $h^\circ$  and flower pigment content of 319 F1 hybrids.

cultivar code	$L^*$	$a^*$	$b^*$	$C^*$	$h^\circ$	An mg/g	Ca g/ml	AnCa	Color
X2	40.22	26.60	9.57	28.28	19.7 7	0.84	8.34	0.1000	Pink
X3	36.45	35.44	9.09	36.59	14.4 1	0.77	9.60	0.0800	Pink
X4	29.52	38.43	2.41	38.51	3.66	1.18	4.99	0.2367	Red
X5	35.14	53.30	6.36	53.74	7.76	0.93	10.51	0.0900	Red
X6	27.81	37.53	13.22	39.79	19.4 4	1.71	25.13	0.0700	Red
X7	44.16	21.93	13.14	25.58	31.1 3	0.59	5.79	0.1033	Pink
X8	67.90	4.79	30.77	31.15	81.1 7	0.26	8.85	0.0333	White
X9	67.52	11.80	16.14	20.02	53.7 5	0.19	4.72	0.0467	Pink
X10	53.40	16.88	0.67	16.90	2.31	0.75	4.78	0.1567	Pink
X11	48.75	19.59	26.78	33.19	53.8 0	0.50	18.35	0.0267	Yellow
X12	37.86	32.49	2.56	32.60	4.52	0.99	9.63	0.1033	Pink
X13	43.55	22.52	18.52	29.16	39.4 9	0.86	10.92	0.0800	Pink
X14	36.99	37.27	-0.14	37.27	-0.22	0.73	5.57	0.1267	Pink
X15	29.73	37.97	3.44	38.13	5.19	1.55	17.45	0.0867	Red
X17	85.31	-8.30	47.43	48.15	-80.0 8	0.02	9.93	0.0000	White
X19	59.71	19.31	11.71	22.72	30.9 0	0.42	8.97	0.0467	Pink
X20	34.83	32.16	24.42	40.38	37.2 1	0.71	23.56	0.0333	Orange
X21	47.36	27.02	4.07	27.33	8.60	0.56	4.37	0.1300	Pink
X23	51.28	17.91	7.52	19.48	22.9 7	0.38	4.80	0.0767	Pink
X25	63.17	11.65	22.43	25.30	62.6 3	0.16	8.88	0.0200	White
X26	27.99	43.11	0.06	43.12	0.10	1.41	8.30	0.1733	Purple
X29	33.06	30.06	27.28	40.60	42.1	1.63	33.87	0.0500	Orange

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X30	60.05	3.84	51.96	52.11	$\frac{85.7}{8}$	0.29	27.50	0.0100	Yellow	
X31	51.62	18.44	29.88	35.16	$\frac{58.3}{8}$	0.37	16.07	0.0200	Orange	
X32	47.96	19.47	31.53	37.07	$\frac{58.2}{7}$	0.25	15.96	0.0167	Orange	
X34	46.32	32.23	-3.38	32.41	-6.01	0.47	3.01	0.1533	Light purple	
X35	46.83	26.65	7.18	27.60	$\frac{15.0}{5}$	0.59	5.36	0.1100	Pink	
X36	70.96	4.01	40.03	40.23	$\frac{84.3}{0}$	0.09	7.09	0.0133	Pink	
X37	24.38	31.20	15.69	34.93	$\frac{26.6}{8}$	2.16	40.82	0.0500	Red	
X39	30.50	35.18	1.25	35.22	2.08	1.61	6.83	0.2400	Red	
X40	38.18	37.43	4.21	37.68	6.42	0.75	5.39	0.1400	Light purple	
X41	23.67	33.83	15.29	37.15	$\frac{24.3}{3}$	0.79	14.23	0.0533	Red	
X42	41.30	31.24	26.55	41.01	$\frac{40.3}{5}$	0.66	18.86	0.0333	Orange	
X43	26.95	40.81	-0.19	40.83	-0.34	1.79	7.18	0.2500	Purple	
X44	38.80	39.54	-2.26	39.61	-3.30	0.55	8.42	0.0667	Pink	
X47	56.11	25.33	4.35	25.73	9.75	0.24	4.61	0.0433	Pink	
X48	45.70	29.30	13.93	32.45	$\frac{25.3}{5}$	0.60	10.39	0.0600	Orange	
X49	35.81	36.28	8.93	37.40	$\frac{13.8}{9}$	0.73	10.26	0.0700	Red	
X50	37.40	34.15	-5.76	34.63	-9.62	1.04	5.25	0.2000	Purple	
X51	56.41	20.31	6.98	21.49	$\frac{19.0}{2}$	0.42	6.12	0.0700	Pink	
X52	51.58	21.15	9.85	23.34	$\frac{25.0}{5}$	0.55	7.28	0.0767	Pink	
X53	54.33	19.25	13.71	23.64	$\frac{35.3}{6}$	0.49	12.76	0.0400	Pink	
X54	59.62	18.25	27.81	33.27	$\frac{56.7}{2}$	0.35	21.06	0.0167	Yellow	
X55	81.69	-2.46	9.31	9.64	$\frac{-75.4}{5}$	0.23	9.55	0.0200	Pink	
X56	31.72	31.81	0.76	31.82	1.41	1.04	5.55	0.1900	Purple	

X57	56.80	17.92	11.73	21.59	33.2 7	0.52	6.90	0.0767	Pink
X58	30.53	34.56	30.33	45.98	41.2 7	0.87	46.55	0.0200	Orange
X59	63.32	6.86	40.00	40.59	80.3 0	0.21	10.54	0.0200	Light yellow
X60	59.95	19.22	14.75	24.23	37.4 8	0.35	7.94	0.0433	Pink
X61	32.02	36.14	-1.62	36.18	-2.57	0.91	5.21	0.1767	Purple
X62	48.81	16.62	53.98	56.48	72.8 9	0.45	25.41	0.0200	Orange
X64	56.82	12.18	35.18	37.27	70.8 8	0.34	13.29	0.0300	Light yellow
X65	55.09	16.78	25.16	30.25	56.3 1	0.20	9.59	0.0200	Light yellow
X66	42.36	31.57	13.04	34.17	22.4 5	0.38	12.07	0.0333	Red
X67	44.86	21.42	7.97	22.88	20.5 1	0.44	7.45	0.0567	Pink
X68	28.83	36.50	21.58	42.40	30.6 0	1.29	23.31	0.0600	Red
X69	31.63	36.56	11.01	38.19	16.7 0	1.36	14.10	0.0967	Red
X71	26.26	37.76	16.33	41.14	23.3 7	1.64	27.76	0.0600	Red
X74	63.98	11.38	6.59	13.18	30.1 4	0.19	4.14	0.0467	White
X75	59.96	12.22	39.19	41.06	72.6 3	0.45	23.04	0.0200	Yellow
X76	67.29	7.73	26.62	27.73	73.7 5	0.15	10.48	0.0133	Red
X77	52.50	15.51	50.06	52.45	72.7 9	0.56	39.58	0.0133	Yellow
X78	64.25	4.18	69.09	69.22	86.5 3	0.26	36.33	0.0100	Yellow
X80	53.40	16.37	14.77	22.08	42.2 0	0.36	11.93	0.0300	Pink
X81	58.89	11.63	68.72	69.75	80.3 2	0.31	38.20	0.0100	Yellow
X84	42.29	34.42	0.48	34.42	0.82	1.40	6.84	0.2067	Pink
X85	52.37	24.64	3.92	24.97	9.01	0.58	7.92	0.0733	Pink
X86	62.45	10.24	26.08	28.08	68.4	0.22	8.90	0.0267	Light

					5					yellow
X87	45.63	22.84	7.47	24.05	$\frac{18.0}{8}$	0.72	6.36	0.1133		Pink
XN1	60.57	15.09	20.48	25.44	$\frac{53.6}{2}$	0.66	13.11	0.0533		Pink
XN2	37.13	35.99	19.00	40.71	$\frac{27.8}{1}$	0.69	21.36	0.0333		Red
XN3	63.09	13.28	12.71	18.41	$\frac{43.9}{1}$	0.52	7.64	0.0667		White
XN4	52.12	19.64	41.37	45.80	$\frac{64.5}{9}$	0.94	32.40	0.0300		Orange
XN6	57.72	16.64	15.63	22.84	$\frac{43.1}{7}$	0.46	15.48	0.0300		Pink
XN7	48.87	28.48	5.37	28.99	$\frac{10.7}{7}$	0.97	7.55	0.1300		Pink
XN9	44.97	15.00	48.39	50.72	$\frac{72.6}{7}$	0.65	24.09	0.0267		Yellow
XN10	51.34	15.42	55.56	57.68	$\frac{74.4}{3}$	0.41	20.40	0.0200		Orange
XN11	38.77	33.24	3.48	33.42	5.97	0.98	8.46	0.1133		Pink
XN12	50.38	22.41	38.17	44.28	$\frac{59.5}{3}$	0.66	23.68	0.0300		Orange
XN13	33.63	33.77	13.89	36.52	$\frac{22.3}{6}$	0.87	16.30	0.0567		Pink
XN14	73.44	3.70	23.63	23.92	$\frac{81.1}{0}$	0.12	5.87	0.0200		White
XN15	46.59	27.99	19.13	34.00	$\frac{34.2}{7}$	0.42	10.41	0.0400		Pink
XN16	34.85	36.88	6.33	37.43	9.78	1.11	15.99	0.0667		Red
XN17	75.14	1.75	37.39	37.44	$\frac{87.3}{3}$	0.12	12.76	0.0100		Light yellow
XN18	46.25	18.89	48.53	52.08	$\frac{68.7}{3}$	0.54	50.05	0.0100		Orange
XN19	46.64	29.25	8.47	30.46	$\frac{16.1}{5}$	0.62	12.17	0.0500		Pink
XN21	79.29	-0.39	26.43	26.44	$\frac{-89.2}{0}$	0.07	7.23	0.0100		White
XN22	31.31	46.23	-3.53	46.37	-4.37	1.18	7.07	0.1667		Light purple
XN23	53.54	18.27	36.44	40.77	$\frac{63.3}{5}$	0.45	27.57	0.0133		Orange
XN24	43.24	22.07	36.82	42.99	59.0	0.86	25.89	0.0400		Orange

XN26	55.51	15.20	5.68	16.28	$\frac{20.3}{2}$	0.31	5.46	0.0600	White
XN27	37.13	40.04	-3.55	40.19	-5.07	1.01	3.32	0.3067	Red
XN28	57.82	27.32	-1.38	27.35	-2.89	0.16	6.35	0.0233	Pink
XN29	40.86	37.63	0.45	37.63	0.68	0.25	14.26	0.0167	Red
XN30	49.21	28.97	9.76	30.57	$\frac{18.6}{2}$	0.66	12.50	0.0533	Pink
XN31	56.90	17.08	32.26	36.52	$\frac{62.0}{9}$	0.53	16.91	0.0300	Orange
XN32	66.28	8.83	25.91	27.37	$\frac{71.1}{7}$	0.25	9.86	0.0233	Red
XN33	46.06	28.01	19.85	34.34	$\frac{35.2}{9}$	0.36	11.95	0.0500	Pink
XN34	36.95	30.57	7.11	31.39	$\frac{13.0}{8}$	0.84	15.88	0.0533	Pink
XN35	47.66	29.71	-5.12	30.15	-9.78	0.31	2.94	0.1033	Pink
XN36	58.18	16.06	15.86	22.58	$\frac{44.5}{9}$	0.29	4.54	0.0667	Pink
XN37	35.05	29.68	27.24	40.29	$\frac{42.5}{0}$	1.01	26.24	0.0400	Yellow
XN38	27.12	40.27	9.10	41.29	$\frac{12.7}{3}$	1.08	32.42	0.0333	Red
XN39	42.71	30.42	-2.16	30.50	-4.10	0.98	3.27	0.3000	Red
XN40	61.79	12.20	23.94	26.88	$\frac{62.9}{4}$	0.42	12.58	0.0300	Pink
XN41	27.84	40.29	9.24	41.35	$\frac{12.8}{3}$	0.71	9.34	0.0800	Red
XN42	31.26	43.52	3.48	43.66	4.57	1.20	7.39	0.1667	Pink
XN43	23.84	37.14	18.04	41.30	$\frac{25.8}{7}$	1.52	23.81	0.0633	Red
XN44	41.09	33.75	2.54	33.86	4.38	0.67	9.61	0.0700	Pink
XN45	48.49	29.04	-3.90	29.31	-7.60	0.40	2.11	0.1933	Red
XN46	43.70	37.99	1.41	38.01	2.13	0.94	6.48	0.1500	Pink
XN47	69.76	12.26	2.28	12.47	$\frac{10.5}{8}$	0.16	3.18	0.0533	Pink
XN48	30.45	37.99	9.91	39.27	$\frac{14.6}{2}$	1.28	10.85	0.1167	Red
XN49	53.56	19.88	8.07	21.49	$\frac{22.2}{4}$	0.57	6.96	0.0833	Pink
XN50	45.44	32.55	0.16	32.55	0.29	0.85	5.97	0.1433	Pink

XN51	28.71	40.54	8.82	41.49	$\frac{12.2}{7}$	1.17	34.25	0.0333	Red
XN52	56.03	23.57	-4.29	23.97	$\frac{-10.3}{3}$	0.41	3.85	0.1033	Pink
XN53	29.90	35.11	22.35	41.64	$\frac{32.4}{9}$	0.73	25.74	0.0300	Red
XN54	28.33	39.52	8.21	40.36	$\frac{11.7}{5}$	1.21	30.51	0.0400	Red
XN55	36.06	34.76	8.76	35.86	$\frac{14.1}{5}$	0.86	10.60	0.0800	Pink
XN56	42.43	31.80	5.70	32.32	$\frac{10.1}{8}$	0.91	5.32	0.1700	Pink
XN57	41.20	35.49	16.95	39.33	$\frac{25.5}{3}$	0.81	13.47	0.0600	Red
XN58	38.24	41.88	-7.57	42.56	$\frac{-10.2}{4}$	0.70	3.07	0.2400	Purple
XN59	62.35	13.70	14.02	19.63	$\frac{45.5}{3}$	0.22	5.59	0.0367	Pink
XN60	69.08	6.43	34.10	34.70	$\frac{79.3}{2}$	0.26	10.61	0.0267	Light yellow
XN61	36.93	36.38	9.66	37.64	$\frac{14.8}{8}$	0.98	13.55	0.0733	Pink
XN63	39.51	29.76	25.74	39.35	$\frac{40.8}{5}$	0.72	17.80	0.0433	Pink
XN64	32.90	34.80	0.34	34.80	0.53	0.82	6.08	0.1367	Pink
XN65	19.96	32.98	16.84	37.03	$\frac{27.0}{5}$	1.33	35.87	0.0400	Red
XN66	45.41	35.18	-1.13	35.21	-1.85	0.69	7.56	0.0900	Pink
XN67	39.77	30.68	30.38	43.19	$\frac{44.6}{5}$	0.79	27.67	0.0367	Red
XN69	30.14	41.44	-1.24	41.47	-1.71	1.32	4.93	0.2667	Red
XN70	32.74	40.78	9.62	41.91	$\frac{13.2}{7}$	1.21	13.57	0.0867	Red
XN71	52.93	21.93	2.28	22.07	6.18	0.44	6.76	0.0667	Pink
XN72	55.41	19.61	12.00	22.99	$\frac{31.4}{6}$	0.60	8.78	0.0667	Pink
XN73	42.39	32.07	-1.15	32.09	-2.05	0.50	2.83	0.1767	Pink
XN74	41.96	30.74	5.71	31.27	$\frac{10.5}{5}$	0.74	8.36	0.0900	Pink
XN75	72.47	3.91	41.43	41.62	$\frac{84.6}{1}$	0.08	11.57	0.0067	Yellow
XN76	35.45	38.73	-0.90	38.74	-1.34	1.25	5.98	0.2100	Red

XN77	65.94	7.40	30.71	31.59	76.4 5	0.21	7.40	0.0267	White
XN78	28.62	39.75	5.70	40.16	8.17	0.98	7.02	0.1400	Red
XN79	65.94	11.46	21.06	23.99	61.2 8	0.19	5.42	0.0367	White
XN80	52.58	25.61	12.87	28.68	26.7 0	0.44	11.14	0.0400	Pink
XN81	57.30	18.84	9.34	21.05	26.4 7	0.59	15.02	0.0400	Pink
XN83	60.53	13.34	14.78	19.91	47.9 1	0.33	7.70	0.0433	Pink
XN84	68.77	6.23	27.16	27.88	77.1 0	0.14	9.57	0.0133	Light yellow
XN85	34.97	35.74	3.84	35.95	6.13	1.06	9.15	0.1167	Red
XN86	43.06	36.62	7.86	37.48	12.0 5	0.38	10.23	0.0367	Red
XN87	32.18	26.24	16.99	31.28	32.8 8	0.61	11.39	0.0533	Red
XN88	67.93	9.05	15.91	18.41	59.9 3	0.17	5.52	0.0333	White
XN89	58.07	13.77	31.48	34.39	66.3 7	0.32	17.41	0.0233	Yellow
XN90	44.65	33.72	-5.13	34.13	-8.66	0.73	6.50	0.1133	Pink
XN91	37.67	24.14	26.99	36.21	48.1 9	0.99	23.81	0.0400	Orange
XN92	52.70	20.82	1.33	20.87	3.40	0.40	4.52	0.0900	Pink
XN93	34.93	31.73	4.82	32.15	8.81	0.56	6.47	0.0867	Pink
XN94	35.78	35.78	1.76	35.83	2.85	1.37	14.38	0.1333	Red
XN95	42.67	34.05	4.26	34.33	7.10	0.86	6.27	0.1367	Pink
XN96	41.43	34.30	13.73	36.97	21.9 2	0.66	11.74	0.0533	Pink
XN97	28.22	37.54	5.76	37.99	8.75	1.31	15.02	0.0900	Pink
XN98	26.98	37.27	8.99	38.34	13.5 5	1.56	17.41	0.0900	Red
XN99	48.45	28.88	8.71	30.21	16.6 9	0.48	8.08	0.0600	Pink
XN101	47.55	23.87	12.47	26.95	27.5 6	1.05	11.26	0.0933	Pink
XN102	40.69	28.02	12.61	30.76	24.2 5	0.40	11.63	0.0367	Pink
XN104	36.41	34.75	15.84	38.30	24.6	0.93	17.60	0.0500	Red

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XN105	36.12	34.16	7.35	34.96	$\frac{12.1}{8}$	0.93	11.11	0.0833	Red
XN106	35.14	35.45	2.89	35.58	4.69	0.93	6.52	0.1467	Pink
XN107	45.93	24.82	1.75	24.88	4.04	0.82	4.47	0.1833	Pink
XN108	44.67	23.01	2.40	23.15	6.04	0.37	4.36	0.0833	Purple
XN109	35.89	40.27	6.46	40.79	9.12	1.09	5.38	0.2067	Pink
XN110	38.58	35.93	1.92	35.98	3.05	0.66	8.77	0.0767	Pink
XN111	59.94	19.15	3.35	19.52	$\frac{10.2}{0}$	0.20	4.96	0.0400	White
XN112	65.59	0.95	56.39	56.40	$\frac{89.0}{5}$	0.09	20.77	0.0000	Yellow
XN113	42.79	32.35	9.90	33.85	$\frac{17.1}{2}$	0.77	16.48	0.0467	Red
XN114	21.83	34.25	7.72	35.12	$\frac{12.7}{6}$	1.96	14.71	0.1333	Red
XN115	26.12	33.36	12.88	35.77	$\frac{20.9}{7}$	1.16	15.28	0.0733	Red
XN116	60.21	16.13	13.34	20.97	$\frac{39.6}{8}$	0.32	8.91	0.0367	White
XN117	24.94	37.84	10.50	39.27	$\frac{15.5}{3}$	1.51	10.93	0.1400	Red
XN118	55.43	19.38	9.68	21.68	$\frac{26.6}{4}$	0.54	8.66	0.0633	Pink
XN121	51.24	20.13	-4.32	20.59	$\frac{-12.0}{9}$	0.47	3.28	0.1500	Pink
XN122	68.72	5.67	30.22	30.77	$\frac{79.2}{9}$	0.04	12.33	0.0000	White
XN123	37.76	33.03	16.36	36.87	$\frac{26.3}{7}$	0.76	15.88	0.0500	Orange
XN124	31.51	35.02	26.58	43.97	$\frac{37.2}{0}$	1.59	33.28	0.0500	Orange
XN125	35.38	33.47	4.78	33.82	8.20	0.31	4.06	0.0767	Pink
XN126	35.49	41.36	0.68	41.37	0.93	0.87	4.91	0.1767	Pink
XN128	43.91	23.61	7.52	24.84	$\frac{17.9}{0}$	0.45	8.22	0.0533	Pink
XN129	58.31	15.50	19.79	25.14	$\frac{51.9}{3}$	0.34	8.39	0.0400	Orange
XN130	77.33	-3.07	57.00	57.09	$\frac{-86.9}{3}$	0.07	17.17	0.0000	Yellow
XN131	54.56	24.48	6.05	25.24	14.0	0.61	10.80	0.0600	Pink



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XN132	19.20	28.02	3.44	28.23	7.00	1.48	4.26	0.3533	Red	
XN133	49.00	19.88	44.53	48.76	$\frac{65.9}{4}$	0.77	37.33	0.0200	Orange	
XN134	53.28	24.95	31.71	40.48	$\frac{51.7}{2}$	0.35	17.24	0.0200	Pink	
XN135	48.41	22.50	21.49	31.13	$\frac{43.6}{5}$	0.41	12.94	0.0333	Pink	
XN136	30.87	32.89	7.70	33.79	$\frac{13.2}{1}$	1.15	11.59	0.1000	Red	
XN137	40.68	30.18	6.28	30.82	$\frac{11.7}{7}$	0.43	9.27	0.0433	Pink	
XN138	73.13	-0.40	46.12	46.12	$\frac{-89.5}{0}$	0.19	15.06	0.0100	White	
XN139	50.85	25.20	2.08	25.30	4.76	0.63	6.58	0.1000	Pink	
XN140	69.31	10.59	5.75	12.08	$\frac{28.5}{3}$	0.30	4.80	0.0633	White	
XN141	41.47	34.75	3.73	34.96	6.13	0.50	4.58	0.1167	Light yellow	
XN142	36.81	35.52	21.52	41.53	$\frac{31.2}{0}$	0.83	21.74	0.0400	Red	
XN143	62.60	10.25	19.01	21.63	$\frac{61.6}{0}$	0.34	10.92	0.0300	White	
X88	29.36	41.22	-3.71	41.39	-5.14	1.27	6.63	0.1900	Purple	
X91	47.14	28.80	20.72	35.48	$\frac{35.7}{4}$	0.57	17.65	0.0300	Red	
X92	54.86	20.91	23.41	31.39	$\frac{48.2}{2}$	0.33	19.03	0.0233	Pink	
X93	40.18	31.06	14.25	34.21	$\frac{24.8}{4}$	0.71	13.81	0.0500	Pink	
X101	33.05	36.38	18.62	40.88	$\frac{27.0}{8}$	1.36	40.47	0.0333	Red	
X103	50.67	25.43	12.23	28.32	$\frac{25.8}{2}$	0.73	8.66	0.0867	Pink	
X104	40.54	30.12	5.69	30.66	$\frac{10.6}{7}$	0.92	5.78	0.1633	Pink	
X105	51.76	21.33	24.06	32.15	$\frac{48.4}{5}$	0.53	12.66	0.0433	Pink	
X107	56.11	15.36	41.23	46.03	$\frac{57.5}{0}$	0.91	36.57	0.0267	Orange	
X108	33.80	38.80	3.82	38.99	5.64	0.99	6.76	0.1467	Purple	
X109	52.83	28.13	9.43	29.68	18.5	0.72	7.26	0.1000	Pink	

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X113	16.42	29.56	10.44	31.35	19.4 1	2.68	22.67	0.1267	Pink
X114	38.30	31.47	5.19	31.90	9.37	0.89	7.26	0.1267	Red
X117	55.00	19.29	6.57	20.40	18.7 2	0.35	4.65	0.0767	White
X121	32.45	38.47	6.64	39.05	9.77	0.84	10.82	0.0800	Pink
X122	53.79	18.73	16.97	25.28	42.1 6	0.84	12.59	0.0700	Pink
X124	19.13	38.84	31.66	116.5 6	15.7 7	2.28	39.66	0.0600	Pink
X125	19.53	33.24	17.31	37.48	27.5 4	1.18	36.91	0.0300	Red
X126	87.63	-7.32	33.72	34.51	-77.6 6	0.01	4.57	0.0000	White
X128	45.01	8.98	25.27	26.96	69.2 2	0.50	9.10	0.1067	Pink
X130	24.23	35.17	21.49	41.21	31.4 3	1.39	8.42	0.1367	Red
X131	25.16	40.05	0.58	40.05	0.84	1.13	5.71	0.2000	Light purple
X132	69.38	7.73	32.94	33.84	76.7 8	0.38	15.63	0.0233	Pink
X133	53.12	17.77	39.01	42.88	65.4 7	0.58	16.78	0.0333	Orange
X134	34.57	32.61	31.77	45.60	44.0 8	1.09	29.03	0.0400	Orange
X137	59.24	20.50	13.93	24.95	34.2 0	0.37	7.70	0.0467	Light purple
X138	37.37	30.16	3.70	30.39	7.14	0.98	17.85	0.0600	Purple
X139	54.72	16.37	22.09	27.52	53.4 5	0.34	14.03	0.0233	Pink
X140	41.10	29.56	18.13	34.70	31.5 7	0.60	5.62	0.1067	Pink
X141	26.20	42.12	26.00	49.51	31.6 7	1.86	51.89	0.0333	Red
X142	52.87	15.24	33.72	37.03	65.6 8	0.17	13.56	0.0100	Yellow
X143	71.58	4.40	50.99	51.18	85.0 6	0.28	27.74	0.0100	Light yellow
X144	46.47	29.04	23.50	37.38	38.9 9	0.64	9.25	0.0733	Pink

X145	22.87	39.94	6.48	40.47	9.18	1.75	11.37	0.1567	Purple
X146	33.36	30.15	12.80	32.76	$\frac{23.0}{1}$	1.05	12.61	0.0833	Pink
X147	31.13	32.78	17.91	37.38	$\frac{28.6}{4}$	1.09	8.73	0.1300	Red
X149	40.85	27.68	38.81	47.74	$\frac{54.4}{8}$	1.40	31.28	0.0433	Orange
X150	33.53	35.61	14.13	38.32	$\frac{21.6}{7}$	0.92	6.99	0.1300	Purple
X151	30.08	41.48	5.73	41.88	7.84	1.33	6.98	0.1967	Purple
X155	70.40	1.86	62.95	62.97	$\frac{88.3}{1}$	0.52	25.03	0.0200	Yellow
X156	29.80	39.90	8.45	40.78	$\frac{11.9}{8}$	0.69	12.72	0.0500	Purple
X157	51.12	17.18	34.13	38.22	$\frac{63.2}{8}$	0.26	17.93	0.0133	Pink
X158	31.69	31.92	13.57	34.71	$\frac{22.9}{5}$	0.93	25.47	0.0367	Red
X159	38.25	32.87	0.21	32.87	0.36	1.42	5.21	0.2733	Light purple
X160	29.80	30.85	27.45	41.37	$\frac{41.3}{2}$	1.45	51.61	0.0300	Orange
X161	48.33	28.08	13.86	31.32	$\frac{26.3}{3}$	0.96	7.89	0.1233	Pink
X163	52.78	20.71	25.84	33.15	$\frac{51.2}{9}$	0.76	9.31	0.0833	Pink
X164	58.91	21.90	1.22	21.93	3.18	0.61	4.92	0.1267	Light purple
X165	55.82	18.35	21.48	28.26	$\frac{49.4}{6}$	0.70	10.63	0.0667	Pink
X166	66.39	10.05	23.54	25.61	$\frac{66.9}{3}$	0.17	6.02	0.0267	Pink
X168	31.52	29.89	13.42	32.79	$\frac{24.2}{7}$	1.30	26.39	0.0500	Red
X169	73.24	3.63	54.77	54.90	$\frac{86.2}{4}$	0.16	21.97	0.0100	Orange
X172	43.04	16.71	25.74	30.74	$\frac{56.9}{1}$	0.23	13.43	0.0200	Orange
X176	54.10	18.50	19.51	26.95	$\frac{46.6}{3}$	0.27	10.08	0.0267	Light purple
X177	42.49	34.41	6.16	34.97	$\frac{10.1}{6}$	1.07	7.03	0.1500	Purple

X179	46.51	32.33	1.09	32.35	2.00	0.34	6.44	0.0533	Purple
X180	36.47	36.48	1.52	36.51	2.39	1.07	7.16	0.1467	Light purple
X181	54.75	17.51	36.66	40.67	$\frac{64.4}{4}$	0.60	13.58	0.0467	Orange
X182	35.87	34.03	9.47	35.33	$\frac{15.5}{6}$	1.09	11.21	0.1367	Red
X184	23.77	38.76	2.95	38.89	4.38	1.25	7.33	0.1700	Purple
X185	55.72	20.78	27.37	34.45	$\frac{52.7}{3}$	0.63	15.21	0.0400	Orange
X186	50.39	28.76	9.44	30.28	$\frac{18.1}{3}$	0.66	7.45	0.1300	Pink
X187	44.15	26.82	44.08	51.60	$\frac{58.6}{5}$	0.59	29.45	0.0200	Orange
X188	47.03	21.86	10.32	24.24	$\frac{25.3}{7}$	1.02	5.71	0.1833	Red
X189	63.92	9.97	57.69	58.55	$\frac{80.2}{0}$	0.38	24.93	0.0133	Orange
X191	39.81	31.59	8.84	32.82	$\frac{15.6}{4}$	0.91	11.08	0.0833	Purple
X192	30.87	36.45	13.90	39.10	$\frac{21.3}{7}$	1.18	22.06	0.0567	Purple
X193	67.98	7.97	21.07	22.60	$\frac{69.0}{3}$	0.06	9.40	0.0100	Orange
X194	53.70	14.62	31.81	35.07	$\frac{65.3}{1}$	0.40	13.29	0.0267	Pink
X195	29.81	37.73	29.95	48.21	$\frac{38.5}{0}$	1.89	35.64	0.0533	Pink
X196	43.44	32.37	1.92	32.43	3.37	0.39	6.92	0.0600	Purple
X197	41.03	30.13	29.51	42.23	$\frac{44.2}{3}$	1.09	11.41	0.0933	Orange
X198	52.60	22.40	16.32	27.72	$\frac{36.0}{9}$	0.41	5.98	0.0667	Light purple
X199	35.44	38.65	16.73	42.12	$\frac{23.4}{1}$	0.80	21.56	0.0400	Red
X200	69.85	8.46	32.71	33.82	$\frac{75.3}{3}$	0.16	10.55	0.0133	Light yellow
X201	41.59	30.71	43.76	53.49	$\frac{54.9}{3}$	0.86	26.47	0.0333	Orange
X202	39.19	28.92	37.95	47.74	$\frac{52.6}{0}$	1.02	12.37	0.0833	Orange
X203	33.22	40.51	-0.63	40.52	-0.85	1.07	10.82	0.1000	Purple

X204	66.01	16.49	6.40	17.71	21.3 8	0.29	5.29	0.0533	Light purple
X207	66.81	7.22	61.67	62.12	83.2 6	0.25	22.60	0.0100	Yellow
X208	28.13	40.48	-3.13	40.60	-4.44	1.19	5.94	0.2033	Purple
X209	44.46	22.84	23.49	32.95	45.7 4	0.80	11.86	0.0667	Orange
X210	64.51	7.84	65.56	66.03	83.1 6	0.58	31.85	0.0200	Orange
X212	60.13	24.63	-3.37	24.88	-7.79	0.28	4.37	0.0633	Light purple
X213	53.32	26.66	-1.25	26.69	-2.68	0.76	6.66	0.1167	Light purple
X215	22.30	41.96	4.95	42.27	6.74	1.84	11.60	0.1600	Purple
X216	77.96	2.85	20.55	20.76	82.0 5	0.10	5.61	0.0200	White
X217	51.12	30.65	1.66	30.70	3.10	0.76	10.72	0.0933	Light purple
X219	27.89	43.28	3.11	43.39	4.13	1.72	6.30	0.3133	Purple
X221	27.38	32.61	21.33	38.99	33.1 0	0.72	26.43	0.0300	Orange
X222	79.59	1.04	18.42	18.44	86.7 7	0.14	3.32	0.0433	White
X223	64.14	10.02	36.87	38.23	74.7 9	0.09	9.84	0.0100	Pink
X225	32.94	39.47	0.24	39.48	0.34	1.04	4.61	0.2267	Red
X227	49.87	32.84	-2.15	32.91	-3.75	0.65	3.94	0.1667	Light purple
X229	45.14	26.29	23.23	35.26	41.1 9	0.54	7.13	0.0767	Red
X231	51.29	18.76	28.94	34.53	57.0 4	0.27	14.24	0.0200	Orange
X232	35.06	29.01	35.53	46.01	50.5 4	1.14	13.01	0.1067	Orange
X235	64.43	10.09	22.29	24.53	65.3 4	0.21	9.14	0.0200	Pink
X236	69.25	1.68	54.05	54.07	88.2 2	0.19	11.66	0.0167	Orange
X237	43.19	32.97	11.55	34.93	19.3 2	0.85	8.66	0.0967	Pink
X239	28.09	42.71	1.66	42.75	2.22	1.36	6.71	0.2033	Purple
X242	26.55	33.79	10.21	35.31	16.8	0.98	11.30	0.0867	Light

					1					purple
X244	71.78	5.60	31.09	31.60	79.8 1	0.17	8.85	0.0200		Light yellow
X245	37.33	35.90	3.38	36.06	5.39	0.82	6.54	0.1267		Purple
X246	32.92	37.38	13.55	39.79	19.8 8	1.15	22.65	0.0467		Red
X247	30.07	40.73	0.43	40.73	0.61	1.60	4.29	0.4200		Purple
X248	37.78	35.13	14.51	38.02	22.4 1	0.70	17.86	0.0367		Red
X249	28.55	39.45	5.96	39.91	8.68	1.32	6.48	0.2067		Purple
X251	30.76	40.67	11.46	42.26	15.7 4	1.20	7.38	0.1633		Red
X252	49.34	30.97	-2.08	31.04	-3.87	0.38	3.27	0.1267		Light purple
X253	58.69	11.12	42.87	44.31	75.4 4	1.34	13.71	0.1000		Yellow
X254	23.90	38.05	7.47	38.79	11.1 5	1.68	9.53	0.1767		Purple
X255	67.52	6.27	39.97	40.47	81.1 1	0.20	6.16	0.0333		Light yellow
X256	45.63	26.99	15.36	31.09	29.7 0	0.85	12.60	0.0833		Pink
X259	50.09	16.84	55.66	58.20	73.1 3	0.64	47.51	0.0100		Orange
X263	60.38	19.14	5.67	19.98	16.4 9	0.63	3.66	0.1700		Light purple
X264	63.50	3.00	42.09	42.20	85.9 0	1.03	8.10	0.1300		Pink
X266	33.52	27.43	32.55	42.57	49.7 7	0.82	40.35	0.0233		Orange
X267	28.85	40.48	2.35	40.55	3.32	1.37	6.68	0.2067		Orange

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