## **CP Statistics – Two-Variable Data Sets**

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1. **SCIENCE** Temperature in the atmosphere at various altitudes:

Altitude (ft)	0	1000	2000	3000	4000
Temp (°C)	15.0	13.0	11.0	9.1	7.1

Source: NASA

2. **HEALTH** Number of gallons of bottle water consumed per person in recent years:

Year	1998	1999	2000	2001	2002	2003
Gallons	15.0	16.4	17.4	18.8	20.7	22.0

Source: US Dept. of Agriculture

3. **BUSINESS** High outdoor temperature (°F) and coffee sales (in hundreds of dollars) for a coffee shop on eight randomly selected days:

Temp	32	39	51	60	65	72	78	81
<b>Coffee Sales</b>	26.2	24.8	19.7	20.0	13.3	13.9	11.4	11.2

4. **MUSIC** Percent of music sales made in U.S. record stores in recent years:

Year	<b>'</b> 95	'96	<b>'</b> 97	<b>'98</b>	'99	'00	<b>'</b> 01	'02	<b>'03</b>	'04
Sales (pct)	52	49.9	51.8	50.8	44.5	42.4	42.5	36.8	33.2	32.5

Source: Recording Industry Association of America

5. **CRIME** The number of crimes reported (in millions) and the number of arrests reported (in millions) by the FBI for 11 years:

Year	1.66	1.65	1.61	1.55	1.44	1.41	1.32	1.23	1.22	1.23	1.22
Sales (pct)	0.72	0.72	0.78	0.80	0.73	0.72	0.68	0.64	0.63	0.63	0.62

Source: Federal Bureau of Investigation

6. **GOLD** Number of ounces of gold produced in the U.S. in recent years:

Year	1998	1999	2000	2001	2002	2003
<b>Troy Ounces (millions)</b>	11.8	11.0	11.3	10.8	9.6	8.9

Source: World Almanac

7. **SCIENCE** Degrees Fahrenheit at which water boils at various elevations (in feet):

<b>Elevation (feet)</b>	2,000	4,000	6,000	8,000	10,000	12,000
Boiling Temp.	208.4	204.8	201.1	197.4	193.6	189.8

Source: U.S. Geological Survey

8. **EDUCATION** Percent of people age 25 and over with high school diplomas in U.S.:

Year	'70	<sup>.</sup> 75	'80	<b>'</b> 85	<b>'90</b>	<b>'</b> 95	<b>'</b> 99
Percent	52.3	62.5	66.5	73.9	77.6	81.7	83.4

Source: U.S. Census Bureau

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9. **VOTING** Number of people of voting age (in millions) and the number of voters who actually turned out to vote (in millions) for federal elections for eight given years:

Voting age pop.	120.3	140.8	152.3	164.6	174.5	182.8	189.5	196.5
Voter turnout	73.2	77.7	81.6	86.5	92.7	91.6	104.4	96.5

**Source**: Federal Election Commission

10. **AIRLINES** In this table, collected from 10 major U.S. airlines, *x* is the number of mishandled baggage items (per 1000 passengers) and *y* is the percentage of on-time flights:

$\boldsymbol{x}$	4.36	4.00	4.42	7.16	4.62	5.92	6.50	8.03	7.02	5.36
y	81.9	80.9	78.4	78.3	75.7	73.8	73.1	70.1	69.1	67.2

Source: U.S. Department of Transportation

11. **Olympics** Winning time (in seconds) for the past 7 Olympic Men's 100-meter races:

Year	<b>'</b> 84	<b>'88</b>	<b>'92</b>	<b>'</b> 96	'00	<b>'</b> 04	<b>'08</b>	'12
Time	9.99	9.92	9.96	9.84	9.87	9.85	9.69	9.63

Source: about.com

12. **Olympics** Winning time (in seconds) for the past 7 Olympic Women's 100-meter races:

Year	<b>'</b> 84	<b>'88</b>	<b>'92</b>	<b>'</b> 96	'00	<b>'</b> 04	<b>'08</b>	'12
Time	10.97	10.54	10.82	10.94	10.88	10.93	10.78	10.75

Source: about.com

13. **HOMES I** Median selling price of new, single-family homes in selected years:

Year	1994	1996	1998	2000	2002	2004
Price (\$1000)	130.0	140.0	152.5	169.0	187.6	219.6

Source: US Census Bureau and US Dept. of Housing and Urban Development

14. **HOMES II** Mean selling price of new, single-family homes in selected years:

Year	1994	1996	1998	2000	2002	2004
<b>Price (\$1000)</b>	154.5	166.4	181.9	207.0	228.7	273.5

Source: US Census Bureau and US Dept. of Housing and Urban Development

15. **NATURE** The lengths (in) and weights (lbs) of 25 alligators captured in Florida:

Length	94	74	147	58	86	94	63	86	69	72	128	85	82
Weight	130	51	640	28	80	110	33	90	36	38	366	84	80
Length	86	88	72	7/	61	90	89	68	76	111	90	78	
Length	00	00	12	/+	61	90	09	Uo	/6	114	90	70	

Source: Florida Game and Freshwater Fish Commissions