

Project: Fraud and Identity Theft The data below, given in ordered pairs (x, y) , show the number x (in thousands) of fraud complaints and the number y (in thousands) of identity theft victims by state in 2014.

(Source: U.S. Federal Trade Commission)

(Spreadsheet at LarsonPrecalculus.com)

DATA	AL (27.8, 3.8)	IL (61.0, 12.3)	NC (50.5, 7.3)	RI (6.2, 0.7)
	AK (3.0, 0.5)	IN (30.7, 4.5)	ND (2.5, 0.3)	SC (25.8, 3.5)
	AR (13.8, 2.5)	KS (12.6, 1.9)	NE (7.8, 0.9)	SD (3.0, 0.3)
	AZ (37.8, 6.5)	KY (19.9, 2.4)	NH (7.5, 0.7)	TN (37.3, 5.0)
	CA (250.1, 39.0)	LA (25.1, 3.4)	NJ (53.5, 7.1)	TX (174.5, 25.8)
	CO (32.1, 4.6)	MA (37.4, 5.1)	NM (10.6, 1.6)	UT (11.5, 1.6)
	CT (18.3, 3.1)	MD (40.4, 5.7)	NV (22.0, 2.8)	VA (49.5, 5.9)
	DE (7.2, 0.7)	ME (5.9, 0.7)	NY (101.5, 16.0)	VT (2.4, 0.4)
	FL (200.4, 37.1)	MI (74.2, 10.3)	OH (58.7, 9.2)	WA (36.1, 10.9)
	GA (78.5, 11.4)	MN (23.1, 3.2)	OK (16.9, 2.7)	WI (24.3, 4.3)
	HI (6.0, 0.6)	MO (31.3, 7.2)	OR (20.1, 4.9)	WV (8.6, 1.1)
	IA (11.4, 1.5)	MS (13.3, 2.4)	PA (69.7, 10.4)	WY (3.0, 0.3)
	ID (7.5, 1.0)	MT (4.6, 0.6)		

- Use a graphing utility to plot the data. Can the data be approximated by a linear model? Explain your reasoning.
- Use the *regression* feature of the graphing utility to find a linear model for the data.
- Use the graphing utility to graph the model from part (b) and the original data in the same viewing window.
- Interpret the graph in part (c). Use the graph to identify any states that appear to differ substantially from most of the others.
- Interpret the slope of the model in the context of the problem.