

Use Table 7.1 to answer the following questions. A fault in the Black Warrior basin of Alabama has a maximum displacement of 100 m. How long is it? What is the length range if the fault is a thrust in the Canadian Rocky Mountains? A fault in the Black Warrior basin is 5 kft long. What is its probable maximum displacement? What is the displacement range if the fault is a normal fault in the western United States?

**Table 7.1.** Ratio of maximum displacement to length for a variety of faults that die out in tip lines in the direction of the measurement. The first two measurements from Rippon (1985) are from Fig. 7.24a, the third is from Fig. 7.24b

Max. displ./ length	Direction measured	Size range	Fault type	Location	Reference
1/10 to 1/20	Dip	40 – 450 cm	Normal	Japan	Muraoka and Kamata (1983)
1/10 to 1/20	Strike	10 – 400 km	Thrust	Canadian Rocky Mts.	Elliott (1976)
1/8	Strike	1.5 – 21 km	Strike slip	Iran	Freund (1970)
1/82	Strike	2.5 km	Normal	Alabama	Chap. 7, Fig. 7.46
1/700	Strike	2 km	Normal	Derbyshire, UK	Rippon (1985)
1/450	Dip	1 km	Normal	Derbyshire, UK	Rippon (1985)
1/340	Strike	1.5 km	Normal	Derbyshire, UK	Rippon (1985)
1/90	Strike	10 – 200 m	Normal	Western USA	Dawers et al. (1993)
1/125	Strike	0.2 – 10 km	Normal	Western USA	Dawers et al. (1993)
1/30 to 1/50	Strike	0.2 – 10 km	Normal	Timor Sea	Nicol et al. (1996)
1/33	Strike	1 – 123 cm	Normal	Eastern USA	Schlische et al. (1996)