While holding knee with thumb and index finger, extend lower leg with index finger of other hand. Measure degree of angle behind knee (popliteal angle).
An angle of less than 90 degrees—5

Scarf sign: With infant supine, support head in midline with one hand; use other hand to pull infant's arm across the shoulder so that infant's hand touches shoulder. Determine location of elbow in relation to midline.
Elbow does not reach midline—4

Heel to ear: With infant supine and pelvis flat on a firm surface, pull foot as far as possible up toward ear on same side. Measure degree of knee flexion (same as popliteal angle).
Knees flexed with a popliteal angle of less than 90 degrees—4

*Numeric ratings correspond with Fig. 7-1, *A*.

Weight Related to Gestational Age

The weight of the infant at birth also correlates with the incidence of perinatal morbidity and mortality. However, birth weight alone is a poor indicator of gestational age and fetal maturity. Maturity implies **functional capacity**—the degree to which the neonate's organ systems are able to adapt to the requirements of extrauterine life. Therefore, gestational age is more closely related to fetal maturity than is birth weight. Because heredity influences a newborn's size, noting the size of other family members is part of the assessment process.

Intrauterine growth curves are used to classify infants according to birth weight and gestational age. The primary intrauterine growth charts that provide national reference data include the work of Alexander, Himes, Kaufman, et al (1996), which is representative of more than 3.1 million live births in the United States, and Thomas, Peabody, Turnier, et al (2000). Olsen, Groveman, Lawson, et al (2010) published new intrauterine growth curves based on more than 257,000 infants in the United States, noting that use of a contemporary, large, and racially diverse United States sample has produced intrauterine growth curves that differ from those