


39. **TAKS REASONING** The euro is the currency in several countries in Europe. In 2003, the dollar value of one euro ranged from \$1.0361 to \$1.2597. Which inequality represents the dollar values v that the euro was *not* worth during the year?

- (A) $1.0361 < v < 1.2597$ (B) $v < 1.0361$ or $v > 1.2597$
 (C) $1.0361 \leq v \leq 1.2597$ (D) $v \leq 1.0361$ or $v \geq 1.2597$

40. **CURRENCY** On October 25, 1865, the steamship *S.S. Republic* sank along with a cargo of gold and silver coins. The list gives the prices of several recovered gold coins. Use the least price and greatest price to write a compound inequality that describes the prices p of the coins.

Prices of Recovered Gold Coins				
\$9,098	\$20,995	\$9,798	\$33,592	\$12,597
\$16,796	\$9,798	\$10,498	\$5,319	\$73,486
\$11,897	\$32,895	\$7,349	\$6,578	\$29,395



41. **ANIMALS** A deer can eat 2% to 4% of its body weight in food per day. The percent p of the deer's body weight eaten in food is given by the equation $p = \frac{f}{d}$ where f is the amount (in pounds) of food eaten and d is the weight (in pounds) of the deer. Find the possible amounts of food that a 160 pound deer can eat per day.

42. **SKIS** A ski shop sells recreational skis with lengths ranging from 150 centimeters to 220 centimeters. The shop recommends that recreational skis be 1.16 times the skier's height (in centimeters). For which heights of skiers does the shop *not* provide recreational skis?

43. **MULTIPLE REPRESENTATIONS** Water can exist as either a solid, a liquid, or a gas. The table shows the temperatures (in degrees Celsius) at which water can exist in each state.

State of water	Solid	Liquid	Gas
Temperatures (°C)	Less than 0	0 to 100	Greater than 100

- a. **Writing an Inequality** Write and solve a compound inequality to find the temperatures (in degrees Fahrenheit) at which water is *not* a liquid.
- b. **Making a Table** Make a table that gives the temperature (in degrees Celsius) when the temperature (in degrees Fahrenheit) of water is 23°F, 86°F, 140°F, 194°F, and 239°F. For which temperatures in the table is water *not* a liquid?
44. **WEATHER** Wind chill temperature describes how much colder it feels when the speed of the wind is combined with air temperature. At a wind speed of 20 miles per hour, the wind chill temperature w (in degrees Fahrenheit) can be given by the model $w = -22 + 1.3a$ where a is the air temperature (in degrees Fahrenheit). What are the possible air temperatures if the wind chill temperature ranges from -9°F to -2.5°F at a wind speed of 20 miles per hour?