

Choose a Method Choose paper and pencil, mental math, or a calculator to tell which measurement is greater.

31. 640 ft; 0.5 mi

32. 63 in.; 125 cm

33. 75 g; 5 oz

34. **Think About a Plan** A college student is considering a subscription to a social-networking Internet site that advertises its cost as “only 87 cents per day.” What is the cost of membership in dollars per year?

- How many conversion factors will you need to use to solve the problem?
- How do you choose the appropriate conversion factors?

35. **Recipes** Recipe A makes 5 dinner rolls using 1 c of flour. Recipe B makes 24 rolls using $7\frac{1}{2}$ c of flour. Recipe C makes 45 rolls using 10 c of flour. Which recipe requires the most flour per roll?

36. **Error Analysis** Find the mistake in the conversion below. Explain the mistake and convert the units correctly.





~~$9 \text{ yd} = ? \text{ ft}$~~
 ~~$9 \text{ yd} \cdot \frac{3 \text{ yd}}{1 \text{ ft}} = 27 \text{ ft}$~~

37. **Writing** Suppose you want to convert kilometers to miles. Which unit should be in the numerator of the conversion factor? Which unit should be in the denominator? Explain how you know.

38. **Reasoning** Without performing the conversion, determine whether the number of new units will be greater or less than the number of original units.

- 3 min 20 s converted to seconds
- 23 cm converted to inches
- kilometers per hour converted to miles per hour

39. **Exchange Rates** The table below shows some exchange rates on a particular day. If a sweater sells for \$39.95 in U.S. dollars, what should its price be in rupees and pounds?

 U.S. DOLLARS	1.00
 INDIAN RUPEES	39.57
 ALGERIAN DINARS	64.15
 BRITISH POUNDS	.50

40. **Estimation** Five mi is approximately equal to 8 km. Use mental math to estimate the distance in kilometers to a town that is 30 mi away.

41. **Reasoning** A carpenter is building an entertainment center. She is calculating the size of the space to leave for the television. She wants to leave about a foot of space on either side of the television. Would measuring the size of the television exactly or estimating the size to the nearest inch be more appropriate? Explain.