

## Section 2.6 Multiplying, Simplifying and Applications

Multiply and simplify.

$$1) \frac{2}{3} \cdot \frac{1}{2}$$

$$4) \frac{5}{10} \cdot \frac{42}{110}$$

$$2) \frac{9}{12} \cdot \frac{1}{12}$$

$$5) \frac{13}{6} \cdot \frac{6}{13}$$

$$3) \frac{14}{5} \cdot \frac{15}{14}$$

$$6) 63 \cdot \frac{4}{7}$$

7)  $\frac{3}{4} \cdot 240$

10) A restaurant has a capacity of 72 patrons. If the restaurant is  $\frac{4}{6}$  full, how many patrons are at the restaurant?

Solve.

8) There are 75 students in Jose's class.  $\frac{3}{5}$  of the students are science majors. How many students are science majors?

11) On a map, 1 in. represents 480 miles. How much does  $\frac{3}{5}$  in. represent?

9) When Maria finished medical school she owed \$ 57,000 in student loans. She repaid  $\frac{1}{4}$  of the total amount within two years of graduating. How much did she repay within two years of graduating?

12) The pitch of a screw is the distance between threads. With each complete rotation of the screw, it goes in or out a distance equal to its pitch. How far will a screw with a pitch of  $\frac{1}{35}$  in. go into a piece of wood when it is turned 10 complete rotations clockwise?