


5.5 Exercises

FOR
EXTRA
HELP

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Math Tutor Center

 MathXL



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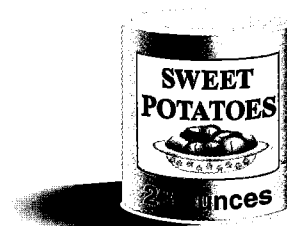
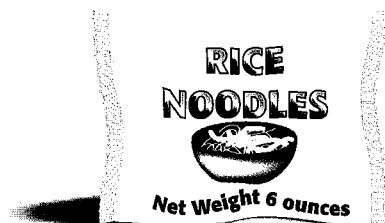
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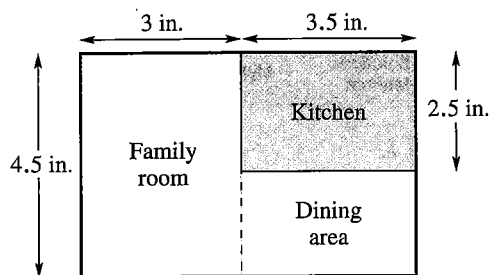
Set up and solve a proportion for each application problem. See Example 1.

- Caroline can sketch four cartoon strips in five hours. How long will it take her to sketch 18 strips?
- The Cosmic Toads recorded eight songs on their first CD in 26 hours. How long will it take them to record 14 songs for their second CD?
- Sixty newspapers cost \$27. Find the cost of 16 newspapers.
- Twenty-two guitar lessons cost \$396. Find the cost of 12 lessons.
-  If three pounds of fescue grass seed cover about 350 square feet of ground, how many pounds are needed for 4900 square feet?
-  Anna earns \$1242.08 in 14 days. How much does she earn in 260 days?
- Tom makes \$455.75 in 5 days. How much does he make in 3 days?
- If 5 ounces of a medicine must be mixed with 8 ounces of water, how many ounces of medicine would be mixed with 20 ounces of water?
- The bag of rice noodles shown below makes 7 servings. At that rate, how many ounces of noodles do you need for 12 servings, to the nearest ounce?
- This can of sweet potatoes is enough for 4 servings. How many ounces are needed for 9 servings, to the nearest ounce?



- Three quarts of a latex enamel paint will cover about 270 square feet of wall surface. How many quarts will you need to cover 350 square feet of wall surface in your kitchen and 100 square feet of wall surface in your bathroom?
- One gallon of clear gloss wood finish covers about 550 square feet of surface. If you need to apply three coats of finish to 400 square feet of surface, how many gallons do you need, to the nearest tenth?

Use the floor plan shown to complete Exercises 13–16. On the plan, one inch represents four feet.



13. What is the actual length and width of the kitchen?
14. What is the actual length and width of the family room?
15. What is the actual length and width of the dining area?
16. What is the actual length and width of the entire floor plan?

The table below lists recommended amounts of food to order for 25 party guests. Use the table to answer Exercises 17 and 18. (Source: CubFoods.)

FOOD FOR 25 GUESTS

Item	Amount
Fried chicken	40 pieces
Lasagna	14 pounds
Deli meats	4.5 pounds
Sliced cheese	$2\frac{1}{3}$ pounds
Bakery buns	3 dozen
Potato salad	6 pounds



17. How much of each food item should Nathan and Amanda order for a graduation party with 60 guests?
18. Taisha is having 20 neighbors over for a Fourth of July picnic. How much food should she buy?

Set up a proportion to solve each problem. Check to see whether your answer is reasonable. Then flip one side of your proportion to see what answer you get with an incorrect setup. Explain why the second answer is unreasonable. See Example 2.

19. About 7 out of 10 people entering a community college need to take a refresher math course. If there are 2950 entering students, how many will probably need refresher math? (Source: Minneapolis Community and Technical College.)
20. In a survey, only 3 out of 100 people like their eggs poached. At that rate, how many of the 60 customers who ordered eggs at Soon-Won's restaurant this morning asked to have them poached? Round to the nearest whole person.
21. About 1 out of 8 people choose vanilla as their favorite ice cream flavor. If 238 people attend an ice cream social, how many would you expect to choose vanilla? Round to the nearest whole person.
22. In a test of 200 sewing machines, only one had a defect. At that rate, how many of the 5600 machines shipped from the factory have defects?