

Lesson 3 Problem-Solving Practice

Multiplying Rational Numbers

<p>1. In a school survey, Randy found that $\frac{5}{12}$ of the students normally wear sneakers, and that $\frac{8}{25}$ of those who wear sneakers normally wear white sneakers. What fraction of the student body normally wears white sneakers?</p>	<p>2. The Darling Downs Rabbit Board fence was built to prevent the spread of rabbits into southern Queensland, Australia. On a map drawn to a scale of 1 in. = $70\frac{6}{7}$ m, the fence measures $8\frac{3}{4}$ inches. How long is the actual fence?</p>
<p>3. A farmer has a 420-acre farm. He planted $\frac{7}{12}$ of it with corn, but later found that $\frac{3}{14}$ of the crop was diseased. How many acres of healthy corn did the farmer have?</p>	<p>4. A $62\frac{1}{2}$-pound bag of concrete mix has $\frac{3}{5}$ of its weight made up of sand and small stones. The stones make up $\frac{1}{4}$ of the weight. What is the weight of the stones in the bag of concrete?</p>
<p>5. A wall in a museum measures 3 meters high by 6 meters wide. One quarter of the wall is dedicated to displays. What is the area of the wall that is dedicated to displays?</p>	<p>6. Refer to the information in Exercise 5. Three paintings, each measuring $1\frac{3}{4}$ meters high by $\frac{4}{5}$ meter wide, are hung in the display space. What is the total area of the three paintings? How much of the display area is still available?</p>

Lesson 4 Problem-Solving Practice

Dividing Rational Numbers

1. In the 16th century, Spain had a silver coin called a peso. The coin was divided into 8 reals. Reals were stamped with an 8, and became known as pieces of eight. How many pesos would have been equivalent to 26 pieces of eight?

2. An anna is an Indian coin equivalent to one sixteenth of a rupee. How many rupees equal 45 annas?

3. The width of a rectangle can be found by dividing its area by its length. The area of the rectangle below is $30\frac{1}{2}$ square feet.



What is the width of the rectangle?

4. In order to vote on any decision, a club requires the presence of $\frac{3}{16}$ of all club members. To be approved, a proposal needs $\frac{2}{3}$ of the votes cast. A club has a membership of 224. What is the minimum number of votes needed for a proposal to be approved?

5. Rachel has a tub that holds $10\frac{1}{2}$ gallons of water. The smaller container she is using to fill the tub holds $1\frac{3}{4}$ gallons of water. How many times will she need to empty the smaller container into the tub until the tub is full?

6. Refer to the information in Exercise 5. Each stack of tiles is $17\frac{1}{2}$ inches tall. If each tile is $1\frac{1}{4}$ inches thick, how many tiles are in a stack?