

Grade 5 Module 2
Application Problems

Lesson 1

The top surface of a desk has a length of 5.6 feet. The length is 4 times its width. What is the width of the desk?

Lesson 2

Jonas practices guitar 1 hour a day for 2 years. Bradley practices the guitar 2 hours a day more than Jonas. How many more minutes does Bradley practice the guitar than Jonas over the course of 2 years?

Lesson 3

Robin is 11 years old. Her mother, Gwen, is 2 years more than 3 times Robin's age. How old is Gwen?

Lesson 4

Jaxon earned \$39 raking leaves. His brother, Dayawn, earned 7 times as much waiting on tables. Write a numerical expression to show Dayawn's earnings. How much money did Dayawn earn?

Lesson 5

Aneisha is setting up a play space for her new puppy. She will be building a fence around part of her yard that measures 29 feet by 12 feet. How many square feet of play space will her new puppy have? If you have time, solve it in more than one way.

Lesson 6

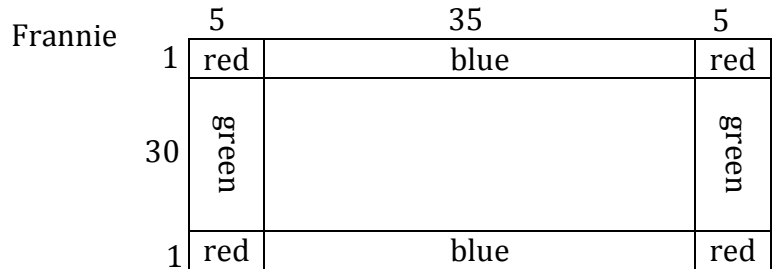
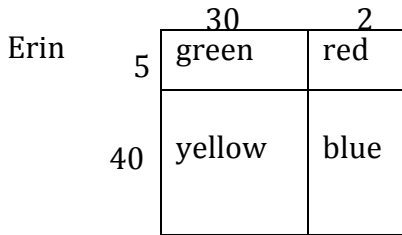
Scientists are creating a material that may replace damaged cartilage in human joints. This *hydrogel* can stretch to 21 times its original length. If a strip of hydrogel measures 3.2 cm, what would its length be when stretched to capacity?

Lesson 7

The length of a school bus is 12.6 meters. If 9 school buses park end to end with 2 meters between each one, what's the total length from the front of the first bus to the end of the last bus?

Lesson 8

Erin and Frannie entered a rug design contest. The rules stated that the rug's dimensions must be 32 inches \times 45 inches and that they must use rectangles. They drew the following for their entries. Show at least three other designs they could have entered in the contest, and calculate the area of each section and the total of your rugs.



Lesson 9 - No Application Problem in Curriculum

Lesson 10

The fifth-grade craft club is making aprons to sell. Each apron takes 1.25 yards of fabric that costs \$3 per yard and 4.5 yards of trim that costs \$2 per yard. What does it cost the club to make one apron? If the club wants to make \$1.75 profit on each apron, how much should they charge per apron?

Lesson 11

Mr. Mohr wants to build a rectangular patio using concrete tiles that are 12 inches square. The patio will measure 13.5 feet by 43 feet. What is the area of the patio? How many concrete tiles will he need to complete the patio?

Lesson 12

Thirty-two cyclists make a seven-day trip. Each cyclist requires 8.33 kg of food for the entire trip. If each cyclist wants to eat an equal amount of food each day, how many kg of food will the group be carrying at the end of day 5?

Lesson 13

(This is a rather long and involved problem including preparation with pieces of string, etc: see curriculum. ☺)

Lesson 14

(Again, this application problem involves preparing bags of beans and rice in four different colors, etc. See curriculum.)

Lesson 15 – No Application Problem in Curriculum

Lesson 16

The area of a vegetable garden is 200 ft^2 . The width is 10ft. What's the length of the vegetable garden?

Lesson 17

852 pounds of grapes were packed equally into 3 boxes for shipping. How many pounds of grapes will there be in 2 boxes?

Lesson 18

Sandra bought 38 DVD movies for \$874. Give an estimate of the cost of each DVD movie.

Lesson 19

At the Highland Fall pumpkin-growing contest, the prize winning pumpkin contains 360 seeds. The proud farmer plans to sell his seeds in packs of 12. How many packs can he make using all the seeds?

Lesson 20

Billy has 2.4 m of ribbon for crafts. He wants to share it evenly with 12 friends. How many centimeters of ribbon would 7 friends get?

Lesson 21

105 students were divided equally into 15 teams.

- How many players were on each team?
- If each team had 3 girls, how many boys were there altogether?

Lesson 22

Zenin's baby sister weighed 132 ounces at birth. How much did his sister weigh in pounds and ounces?

Lesson 23

The rectangular room measures 224 square feet. One side of the room is 14 feet long. What is the perimeter of the room?

Lesson 24

A long-time runner compiled her training distances in the chart below. Fill in the missing values.

Runner's Log

Total Number of Miles Run	Number of Days	Miles Run Each Day
420		12
14.5	5	
38.0	10	
	17	16.5

Lesson 25

Ms. Heinz spent 12 dollars on 30 bus tokens for the field trip. What was the cost of 12 tokens?

Lesson 26

Find the whole number quotient and remainder of the following two expressions:

$$201 \div 12$$

$$729 \div 45$$

Use $>$, $<$, or $=$ to compare this sentence: $201 \div 12$ _____ $729 \div 45$, and justify your answer using decimal quotients.

Lesson 27

Michael has 567 pennies, Jorge has 464, and Jaime has 661. If the pennies are shared equally by the 3 boys and 33 of their classmates, how much money will each classmate receive? Express your final answer in dollars.

Lesson 28 – No Application Problem in the Curriculum

Lesson 29

A one-year (52-week) subscription to a weekly magazine is \$39.95. Greg calculates that he would save \$219.53 if he subscribed to the magazine instead of purchasing it each week at the store. What is the price of the individual magazine at the store?