**Module 5.2 Lesson 1**

Application Problem (6 minutes):

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?

**Module 5.2 Lesson 2**

Application Problem (8 minutes):

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?

**Module 5.2 Lesson 3**

Application Problem (7 minutes):

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

**Module 5.2 Lesson 4**

Application Problem (6 minutes):

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?

**Module 5.2 Lesson 5**

Application Problem (5 minutes):

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.

**Module 5.2 Lesson 6**

Application Problem (6 minutes):

Scientists are creating a material that may replace damages 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?

**Module 5.2 Lesson 7**

Application Problem (6 minutes):

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?

**Module 5.2 Lesson 8**

Application Problem (6 minutes)

Erin and Frannie entered a rug design contest. The rules stated that the rug’s dimensions must be 32 inches x 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.



**Module 5.2 Lesson 10**

Application Problem (6 minutes):

The fifth-grade craft club is making aprons to sell. Each apron takes 1.25 yard 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?

**Module 5.2 Lesson 11**

Application Problem (6 minutes):

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?

**Module 5.2 Lesson 12**

Application Problem (7 minutes):

Thirty-two cyclists make a seven day trip. Each cyclist requires 8.33kg 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 the day?

**Module 5.2 Lesson 13**

Application Problem (12 minutes):

Hands-On Application Lesson --- Not for students to receive

Preparation: Cuts pieces of string in four different colors. There should be enough pieces so that individual or pairs of students have one string.

Blue strings—to the nearest foot. Pieces measure 1 ft, 2 ft, 3 ft, and 4 ft.

Red strings—to the nearest inch. Pieces measure 12 in, 24 in, 36 in, and 48 in.

Yellow string—to the nearest meter. Pieces measure 1 m, 2 m, 3 m, and 4 m.

Green string—to the nearest centimeter. Pieces measure 100 cm, 200 cm, 300 cm, and 400 cm.

Procedure: Pass out one piece of string for every one or two students. Tell students that every string has an exact match, and after they measure their string, they will find their string’s match. Instruct students to measure their piece of string using the unit specified by the color of their string.

After all pairs have successfully measured, they should find the student(s) who have the different color string with the exact same string length as theirs, such that the student with the blue string measuring 1 foot, should find the student(s) with the red string measuring 12 inches. Students should compare and discuss their measurements. Prompt students to explain how the same sized piece of string could have two different measurements. Record the results.

After results are recorded, discuss. Among the observations students might make, be sure that the following are included:

There are 12 inches in 1 foot and 100 centimeters in 1 meter, when comparing quantity.

There are always \_\_\_\_\_\_ times as many smaller units as larger units. (A generalized equation such as \_\_\_\_ft × 12 = \_\_\_\_\_\_ inches might be recorded.)

Multiplication converts larger units (feet and meters) to smaller ones (inches and centimeters).

**Module 5.2 Lesson 14**

Application Problem (3 minutes):

Emma’s class is preparing for a field trip to the Statue of Liberty. In math class, they are researching Lady Liberty’s size. Help Emma finish this table.

|  |  |
| --- | --- |
| The Statue of Liberty’s… | Convert to Inches |
| …mouth is 3 feet wide. |  |
| …head is 10 feet from ear to ear. |  |
| …height is 111 feet. |  |

**Module 5.2 Lesson 16**

Application Problem (5 minutes):

The area of a vegetable garden is 200$ft^{2}$. The width is 10 ft. What’s the length of the vegetable garden?

**Module 5.2 Lesson 17**

Application Problem (5 minutes):

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

**Module 5.2 Lesson 18**

Application Problem (6 minutes):

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

**Module 5.2 Lesson 19**

Application Problem (7 minutes):

At the Highland Falls 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?

**Module 5.2 Lesson 20**

Application Problem (5 minutes):

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

**Module 5.2 Lesson 21**

Application Problem (5 minutes):

105 students were divided equally into 15 teams.

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

**Module 5.2 Lesson 22**

Application Problem (6 minutes):

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

**Module 5.2 Lesson 23**

Application Problem (5 minutes):

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

**Module 5.2 Lesson 24**

Application Problem (7 minutes):

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 |

**Module 5.2 Lesson 25**

Application Problem (7 minutes):

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

**Module 5.2 Lesson 27**

Application Problem (5 minutes):

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.

**Module 5.2 Lesson 29**

Application Problem (8 minutes):

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?