

2010 Cohort

Multiplication and Division Story Problems (K to 7) – based on page 25 FSiM Operations Resource book

Late Primary

Make Arrays and Combinations

There are 4 different types of pasta noodles and 5 different sauces. How many different dishes of pasta can we make?

Need Products of Measures

What is the area of a rectangle 5 cm by 10 cm? 4 cm by 5 cm? 2 cm by 7 cm?

There are several types of pasta and 5 different sauces. If 20 different dishes can be made, how many types of pasta must there be?

There are 4 types of pasta noodles and various sauces. If 20 different dishes can be made, how many sauces are there?

A rectangle of area 50 square centimetres has one side 10 cm long. How long is the adjacent side?

A rectangle of area 50 square centimetres has one side 5 cm long. How long is the adjacent side?

More Late Primary - French

Le fermier a 12 cochon. Il a 36 épis de maïs. Combien d'épi est ce que chaque cochon va recevoir?

Il y a 36 épis de maïs. Le fermier doit nourrir les cochons 3 fois. Combien de cochon est ce qu'il y a?

Un écureuil a ramasser 45 noix. Il les a cacher en 5 trous. Combien de noix a-t-il mit en chaque trou?

Il ya 27 élèves dans une classe. Le professeur leur donne 12 cahiers. Combien de cahier a chaque élèves?

L'enseignant doit distribuer 324 cahiers. Chaque élève doit avoir 12 cahiers. Il y a combien d'élèves dans la classe.

Si chaque personne brosse leur dents 3 fois par jour, 5 fois par semaine. Combien de fois est ce quelle brosse leur dents pendant une année?

Ma mère a achète 162 pair de chaussettes. Il y a 6 personnes dans ma famille. Combien de pair de chaussette est-ce-que chaque personne recevra?

J'ai cuit 363 biscuit. Je donne 11 biscuit a chacun de mes amis. Combien d'ami ai-je?

Je vais a ma classe de piano 2 fois par semaine, 3 fois par mois. Combien de fois est ce que je vais a ma classe de piano pendant une année?

Le père noël a 789 cadeau a distribuer a Comox. Chaque maison recevra 3 cadeau. Combien de maison doit le père noël visiter?

Early Intermediate

Multiplication and Division Problems

Repeat Equal Quantities

There are 9 boxes. Each one can hold 7 snowboards. How many snowboards will we need to fill all the boxes?

Rates

Apples at the Farmers' Market are \$1.99/kg. If your mom wants you to buy 5.5kg, how much money will she need to send with you?

Ratio Comparisons

Jesse has 6 times as many cookies as Toby. If Toby has 12 cookies, how many does Jesse have?

Arrays and Combinations

There are 6 types of shirts and 5 different hats. How many different outfits can we make?

Products of Measure

A zip-line course measures 8.6 km by 7.3 km. What is the area?

Early Intermediate

Janice counts out her Halloween candy. She got 72 candies and wants to eat them every day for the next 8 days. How many candies will she eat each day?

Mary has 50 candies to give out on Halloween. She has 12 kids come to her door and has 2 candies left over at the end of the night. How many did she give out to the kids?

Susan comes home with 11 candies. Richard has 55. How many times as many candies does Richard have?

If Richard and Susan share their candies, how many will each have?

Paul has 6 friends coming to his birthday party. He wants to give each person 12 water balloons. How many water balloons will he need to buy?

More Early Intermediate

Multiplication	Division (partition/sharing) – know how many portions	Division (quotition/grouping) – know the size of the portions
Repeat Equal Quantities		
There are eight basketball courts in the gym and seven students can play Around the World at each court. How many students can play?	Fifty-six students need to form eight equal groups, with one group at each basketball court to play Around the World. How many students should be in each group?	There are 56 students in our combined gym class. If students are put into groups of seven to play Around the World, how many basketball courts will we use?
Use Rates		
Frozen turkeys cost \$2.12 a kilogram. How much will it cost for an 8 kg turkey?	If an 8 kg frozen turkey costs \$16.96, what is the price per kilogram for frozen turkey?	Frozen turkeys cost \$2.12 a kilogram. If a frozen turkey costs \$16.96, how much must it weigh?
Make Ratio Comparisons or Changes (scale)		
An oil painting is 91.44 cm tall. If a reproduction of the painting	A reproduction of an oil painting has been printed to .5 of the	A 91.44 cm tall oil painting has been reproduced and printed to

is printed to .5 of its original size, what will the height be?	original size and is now 45.72 cm tall. What is the height of the original?	45.72 cm. What is the reduction ratio?
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Multiplication	Division
Make Arrays and Combinations	
I have seven different collared shirts and nine different ties. How many different shirt and tie combinations can I wear?	I have a number of different collared shirts and nine different ties. If I can make 63 different shirt and tie combination, how many shirts must I have?
Need Products of Measures	
What is the area of a soccer field that is 46 m by 73m?	A soccer field of area 3358 square metres has sides that are 73 m long. How wide is the soccer field?

More Early Intermediate

Multiplication Repeat Equal Quantities

There are 3 flower boxes with 3 flower bulbs in each. How many flowers will there be?
 12 pillowcases will each need $\frac{1}{3}$ of a metre of fabric. How much material do we need?

Use Rates

A box of 6 chocolate bars cost \$3.00. How much will it cost for 24 chocolate bars?

Make Ratio Comparisons or Changes (scale)

Tim has 4 times as many pages of hockey cards as Ian. If Ian has 2 pages, how many does Tanya have?

A curtain rod is 120 cm long. If it is made smaller by 0.6 of its original size, what will its length be?

Division (partition/sharing)

24 flower bulbs need to be planted equally into 6 flower boxes. How many bulbs will be in each box?

We have 8 metres of fabric to make 8 pillowcases. How much fabric can we use for each pillowcase?

Use Rates

If a box of 24 chocolate bars costs \$12.00 what is the price for a box of 12 chocolate bars?

Ratio Comparisons/Change

Tim has 4 times as many pages of hockey cards as Ian. If Tim has 40 pages, how many pages of hockey cards does Ian have?

A curtain rod has been made smaller by 0.6 of its original size. It is now 60 cm long. What was its original length?

Division (quotation/grouping)

There are 24 flowers on our patio. Each flower pot holds six flowers. How many flower pots are there?

Each pillow case needs half a metre of fabric. How many pillowcases can we make with twelve metres of fabric?

Chocolate bars cost \$0.50 each. If a box of chocolate bars costs \$15.00, how many chocolate bars are in the box?

Division (quotation/grouping) – Make Ratio Comparisons

Ian has 2 pages of hockey cards. How many times as many pages of hockey cards does Tim have if he has 8 pages?

A 120 cm long curtain rod is shortened to 40 cm. What ratio is it shortened?

Arrays and Combinations

There are 3 different sweaters and 4 different coloured scarves. How many sweater and scarf outfits can we make?

If I can make 12 different sweater scarf outfits with four different colours of scarves, how many different sweaters do I have?

I have 3 different sweaters and can make 12 different sweater and scarf outfits. How many different coloured scarves do I have?

Need Products of Measure

What is the area of a garden 8m x 4m?

A rectangular garden has an area of 24m. the longest side is 8 m long. How long is the other side?

A rectangular garden has an area of 24 m. One side is 4 m long. How long is the other side?

More Early Intermediate

Repeat Equal Quantities:

(M)There are 7 chairlift seats at Mt. Norquay on the back country run, and three skiers can sit in each one. How many skiers can ride up the mountain?

(D-P)Thirty-six skiers need to form 6 equal groups. How many skiers should be in each group?

(D-Q)There are 54 students on the bus. Our new bus can seat two on each seat. How many seats will they fill?

Use Rates:

(M)Asparagus cost \$3.98 a kilogram. How much will it cost for 4.5 kilograms?

(D-P)If a 6.0 kilogram basket of asparagus costs \$24.00, what is the price for one kilogram?

(D-Q)Apples cost \$3.75 a kilogram. If a basket of apples costs \$12.50, how much must it weigh?

Make Ratio Comparisons or Changes (scale):

(M)Tara has 6 times as many Werthers as Beth. If Beth has 4, how many does Tara have.

(D-P)Tara has six times as many M&M's as Beth. If Tara has 32 how many does Beth have?

(D-Q)Tara has 12 Jube-Jubes. How many times as many Jube-Jubes does Beth have if she has 80?

Make arrays and combinations

There are three different types of cupcakes and six types icing. How many different combinations can we make.

There are several different types of cupcakes and six icing colours. If 24 cupcakes can be made, how many different types of cupcake flavours must there be?

What is the area of a rectangle 25 mm by 14.2 cm?

A rectangle of area 320.4 sq centimetres has one side 32 cm long. How long is the adjacent side?

Later Intermediate - French

Multiplication - Repeat equal quantities La Multiplication - Quantités égales et répétitives
Un fermier sème 106 rangées d'haricots. S'il sème 349 graines dans chaque rangée, combien de plantes d'haricots vont pousser?

Division - Repeat equal quantities

La division - Quantités égales et répétitives Chez une boulangerie, il y a 18 469 biscuits pour emballer en sacs. S'il y a 1190 sacs, combien de biscuits est-ce que le boulanger va placer dans chaque sac?

Later Intermediate

Multiplication - Repeat Equal Quantities

There are 54 bags of candy and 24 chocolate bars in each bag. How many chocolate bars altogether?

12 children are going trick or treating and each one is making a candy sack. Each candy sack needs two-thirds of a metre of fabric. How much material do we need?

Use Rates

Pumpkins cost \$0.42 per kilogram. How will a 3.5 kilogram pumpkin cost?

Make Ratio Comparisons or Changes (scale)

Maia has 3 times as many candies as Nancy. If Nancy has 432 candies, how many

does Maia have?

Jane has a 60 cm long piece of licorice. If she eats 0.6 of its original size, what will its length be?

Division (partition/sharing) – know how many portions
Repeat Equal Quantities

There are 756 candies and they need to be put in 12 bags. How many candies will be in each bag?

We have 72 cm of licorice whip to share with 12 kids. How much licorice will each kid get?

Use Rates

If a 50-kilogram pumpkin costs \$12.00, what is the price for one kilogram?

Make Ratio Comparisons or Changes (scale)

Mark has 7 times as many chocolate bars as Nick. If Mark has 224 chocolate bars, how many does Nick have?

A piece of licorice that has been reduced to 0.3 of its original size is now 12 cm long. What was its original length?

More Later Intermediate

Multiplication/Division Problems

Repeat Equal Quantities

Multiplication	Division (partition/sharing)	Division (quotation/grouping)
There are 6 toboggans with 4 available seats on each of them. What's the maximum number of friends that Max can invite to his tobogganing party to make sure there is a seat for everyone, including him.	23 of Max's friends (as well as Max himself) need to fill the seats on 6 toboggans. How many students will he need to fit on each one?	Max invited 23 friends to his tobogganing party. The problem is he can only fit 4 on each toboggan can only take 5

Use Rates

Multiplication	Division (partition/sharing)	Division (quotation/grouping)
The snow is falling 3cm/hr. How much snow will accumulate in 5.5 hours?	16.5 cm of snow has accumulated in the last 5.5 hours. What was the rate of snowfall per hour?	Snow is falling 3 cm/hr. If 16.5 cm have accumulated, how many hours has it been falling?
OR		
The snow is falling 3cm/hr. It's 1:00 am. If this rate continues, how much snow will accumulate by 7:45 am?	Snow started to fall at 1:00 am. By 7:45, 20.25cm had accumulated. How much snow fell per hour on average?	At 1:00 am, snow started falling at a rate of 3 cm/hr. If 16.5 cm of snow has accumulated since then, what is the current time? How many hours have lapsed?

Make Ratio Comparisons or Changes

Multiplication	Division (partition/sharing)	Division (quotation/grouping)
<p>During the 2010 Olympics, Cypress Mountain only had a snow base of 90 cm. Mt. Washington's snow base that same year was $5\frac{1}{2}$ times greater. How high was Mt Washington's?</p>	<p>With a base of 485 cm in 2010, Mt. Washington had one of the highest snow packs in the world.</p> <p>In fact, this was 5.5 times greater than the Cypress Mountain skill hill used for the 2010 Winter Olympics. What was the base of Cypress?</p>	<p>With a base of 485 cm in 2010, Mt. Washington had one of the highest snow packs in the world.</p> <p>In fact, Cypress Mountain only had 90 cm base during the 2010 Winter Olympics. How many times greater was Mt. Washington's?</p>

More Later Intermediate

Multiplication	Division (partition/sharing)	Division (quotation/grouping)
<p>Repeat Equal Quantities</p> <p>There are 30 Stanley Cup rings made per winning team each year. If the NHL has awarded this trophy 127 times, how many rings have been produced.</p>	<p>3 810 Stanley Cup rings have been given out during its 127 year history thus how many rings are equally issued per team?</p>	<p>A total of 3 810 Stanley Cup rings have been given out during its history. If 30 are issued to the winning team each year, since when have the Stanley Cup rings been issued.</p>
<p>Use Rates</p> <p>Caviar costs 5 123\$ a pound. How much will it cost for 3,5 lbs?</p>	<p>If 3.5 lbs of caviar costs 17 930,5 \$, what is the price for one pound?</p>	<p>Caviar costs 5 123\$ per pound. If a load of caviar costs 17 930,5 \$, how much must it weigh?</p>
<p>Make Ratio Comparisons</p> <p>Stéphane has 12 times as many pieces of beef jerky as Marie. If Marie has 15, how many does Stéphane have?</p>	<p>or Changes</p> <p>Stéphane has 120 times as many pieces of beef jerky as Marie. If Marie has 15, how many does Stéphane have?</p>	<p>Marie has 15 pieces of beef jerky. How many times as many pieces of beef jerky does Stéphane have if he has 180?</p>

Make Arrays and Combinations

- There are 9 base colours for t-shirts and 15 different patterns. How many different designs of t-shirts can we make?
- There are several base colours of t-shirts and 15 different patterns. If 135 different t-shirt designs can be made, how many base colours are there?
- There are 9 base colours and various patterns. If 135 different t-shirt designs can be made, how many different patterns are there?

Need Products of Measure

- What is the area of a rectangular yard if it measures 185 feet by 90 feet?
- A rectangular yard with an area of 16 650 sq feet has one side 90 feet long. How long is the adjoining side?
- A rectangular yard with an area of 16 650 sq feet has one side 185 feet. How long is the adjoining side?

More Later Intermediate

Multiplication**Division (partition/sharing) Division (quotation/grouping)**

- know how many portions
- know the size of the portions

Repeat Equal Quantities

The Halloween party planners were able to get 27 tables each sitting 8. How many people can they sit altogether?	216 people were seated evenly at the Halloween party. There were 27 tables, how many people at each table?	There are 216 people expected to attend the Halloween party. There are enough chairs to put 8 at a table, how many tables are needed?
Eight table covers will each need three quarters of a metre of fabric. How much material will be needed for all the tables?	We have 6 metres of fabric to make 8 table covers. How much fabric is needed for each table?	Each table cover needs three quarters of a metre of fabric. How many table covers can be cut from six metres?

Uses Rates

Pumpkins cost \$.98 a kilogram. The class found 4 pumpkins weighing 24 kilograms. How much did they cost?	If 4 pumpkins, weighing 24 kilograms in total, cost \$23.52, what was the price for one kilogram?	If 4 pumpkins cost \$23.52 in total and pumpkin sells for \$.98 a kilogram, how many kilograms did the 4 pumpkins weigh?
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Make Ratio Comparisons or Changes (scale)

Danielle had eight times as many tickets to sell as Darnell. Darnell has 120 tickets, how does Danielle have?	Danielle has eight times as many tickets to sell as Darnell. Danielle has 960 tickets, how many does Darnell have?	Danielle has 960 tickets to sell. How many more times as many tickets does she have to sell if Darnell has 120?
A poster is 556 cm high. If it was reduced to 0.75 of its original size, what will its height be?	A poster that has been reduced to 0.75 of its original size is now 417 cm high. What was the original height?	A 556 cm poster has been reduced to 417 cm. What was the reduction ratio?