

# Story Problems

## Addition and Subtraction

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### *KINDERGARTEN*

2 little bears went into their cave. Soon Mama bear joined them. How many bears are now in the cave? (result unknown)

There were 3 bears in the tree, but there should be 5. How many are missing? (change unknown)

There were some bears in the den. Then 2 more walked in. That made 5 bears. How many bears were in the den to begin with? (Start unknown)

I see 2 bears in one tree and 4 bears on the ground. How many bears are there altogether? (whole unknown)

There are 7 bears in the woods. 2 are red and the rest are blue. How many are blue? (one part unknown)

### **Change:**

Five little spiders were sitting on a gate. Three jumped into a web. How many spiders were left on the gate?

Baa Baa Black Sheep had 6 bags of wool. He gave 3 to the little boy who lived down the lane. How many bags of wool did he have left?

Joe has 2 gingerbread men cookies. Suzy give him 4 more gingerbread cookies. How many cookies does Joe have now?

Nick has 4 gingerbread men but he wants 6. How many more does Nick to get?

Grace had some gingerbread men. Emma gave her 3 more gingerbread men. Grace now has 6 gingerbread men. How many gingerbread men did Grace have to start with?

Colin had 5 gingerbread men. He gave 2 to Donna. How many gingerbread men does Colin have left?

Reese has 4 gingerbread men. She gave some to Myles. Now Reese has 1 left. How many did she give to Myles?

Sally has some gingerbread men. She gave 1 to Claire. Now Sally has 4 left. How many gingerbread men did Sally start with?

**Combine:**

Kelly has 3 gingerbread boys and 4 gingerbread girls. How many does he have in all?

Kristi has 6 gingerbread boys. 4 have buttons and the rest don't. How many don't have buttons?

**Equalize or Compare:**

Chris has 4 gingerbread boys and 3 gingerbread girls. If the boys and girls find a partner, how many boys won't find a partner?

Emilee has 4 gingerbread boys and some gingerbread girls. The gingerbread boys stood beside a gingerbread girl. There were 2 gingerbread girls all by themselves. How many gingerbread girls does Emilee have?

Max has 6 gingerbread girls and some gingerbread boys. All the gingerbread girls tried to find a partner but there were 2 gingerbread boys too few. How many gingerbread boys does Max have?

Dylan has 4 gingerbread boys and 2 gingerbread girls. How many more gingerbread boys does Dylan have?

Rowan has 3 gingerbread boys and some gingerbread girls. He has 2 more gingerbread girls than boys. How many gingerbread boys and girls does he have all together?

Leah has 3 gingerbread boys and some gingerbread girls. She has 1 fewer gingerbread girl. How many gingerbread girls does Leah have?

*Grade One Story Problems*

Change: Join

I picked 10 apples.  
My friend picked 11  
How many apples altogether?

Join – Result Unknown

Ariel and her little brother were looking for shells on the beach. She found 4 and her brother found 3. How many shells did they find altogether?

Join – Change Unknown

Ariel found 4 shells on the beach. Her brother gave her some more. Now Ariel has 7 shells. How many did her brother give her?

Join – Start Unknown

Ariel had some shells. Her brother gave her 3 more. Now she has 7 shells altogether. How many shells did Ariel have to begin with?

Change: Separate

I picked 10 apples  
I gave my friend 6  
How many do I have now?

Separate – Result Unknown

Ariel had 5 shells. She gave 3 of them to her little brother. How many shells does Ariel have left?

Separate – Change Unknown

Ariel had 5 shells. She gave some to her little brother. Now she has 2 shells left. How many shells did she give to her little brother?

Separate – Start Unknown

Ariel had some shells. She gave her brother 3 shells. Now she has 2 shells left. How many shells did Ariel have to start with?

Combined: 1 part unknown

I have 12 apples  
6 are red  
How many are green?

Compare:

I have 14 red apples and 8 green apples  
How many more red do I have than green?

Equalize

Ariel put 8 white shells on the sand. Then she placed 5 grey shells alongside the white shells. Not all of the white shells have a partner though! How many of the white shells don't have a partner?

## Compare

Anna has 8 white shells and 5 grey shells. How many more white shells does she have than grey shells?

## *Math Problems for Gr. 1-2*

### **Addition & Subtraction:**

#### Join:

Colton had 4 Pokeman cards. Then he got 3 more from Oliver. How many cards does Colton have now? (*result unknown*)

Bryce traded Pokeman cards with Tristen and Tyler. He has 6 new cards. 3 of the cards were from Tristen. How many cards did he get from Tyler? (*change unknown*)

Liam had some Pokeman cards. Brandon gave him 4 more cards. Now Liam has 10 Pokeman cards. How many did he have to start with? (*start unknown*)

#### Separate:

Hunter has 13 Pokeman cards. He gives Paul 4 cards for free. How many cards does Hunter have left? (*result unknown*)

Jaidon had some Pokeman cards. He lost 5 Pokeman cards in the game he played with Johnny. He now has 10 cards left. How many cards did Jaidon start with? (*start unknown*)

Jack had 12 Pokeman cards. He gave some of his cards to Jamie. He now has 10 cards. How many cards did Jack give to Jamie? (*change unknown*)

### Combine Problems:

Sienna brought her Littlest Pet shop collection to school. She has 3 Littlest Pet shop cats and 7 Littlest Pet shop dogs. How many Littlest Pet shop pets does she have in all? (*whole unknown*)

Sophie has 16 Littlest Pet shop pets. 6 are cats and the rest are dogs. How many of Sophie's Littlest Pet shop pets are dogs? (*one part unknown*)

#### Equalize:

Mary has 6 pink Littlest Pet shop pets and Emily has 4 blue Littlest Pet shop pets. If Mary puts each of her pink pets with one of Emily's blue pets, how many pink pets would not have a blue pet to pair up with?

Sapphire has 8 Littlest Pet shop cats and some Littlest Pet shop dogs. If she paired up her cats and dogs, 2 dogs would not have a cat to pair with. How many Littlest Pet shop dogs does she have?

Compare:

Amber has 12 Littlest Pet shop pets and Sophie has 6 Littlest Pet shop pets. How many more Littlest Pet shop pets does Amber have?

Brittany has 10 pink Littlest Pet shop pets and some blue pets. She has 4 more pink pets than blue pets. How many blue pets does Brittany have?

**CHANGE**

**Join**

Result unknown – Jade counted 8 robins and 4 chickadees. How many birds did she count in all?

Change unknown – Jade counted 10 crows. How many more would she need to count until she reached 20 crows? 30 crows?

Start unknown – Jade and Tom were counting birds. Tom counted 9. Together they counted 15. How many birds did Jade count?

**Separate**

Result unknown – Jade counted 14 seagulls on a log. Seven flew off. How many are left on the log?

Change unknown – Jade counted 9 eagles feeding on the beach, then some flew off and only 4 were left. How many flew off?

Start unknown – There were some eagles on the beach. Jade counted 5 who flew off and 5 left on the beach. How many were on the beach to start with?

**COMBINE**

Whole unknown – Jade counted 10 juncos and 5 robins. How many did she count all together?

One-part unknown- Jade counted 20 birds. 10 were blue jays and the rest were robins. How many were robins?

### **EQUALIZE OR COMPARE**

Equalize – There were 8 baby King penguins waiting for their fathers to return. 10 male, or father King penguins returned. How many fathers won't get a baby?

Compare – There were 10 father King penguins and eight babies. How many more fathers were there than babies?

Equalize – There were 8 father King penguins and some baby King penguins. All but 3 of the father Penguins found a baby. How many baby King penguins were there?

Compare – There were 8 father King penguins and some baby King penguins. There are 3 more fathers than babies. How many baby King penguins are there?

### *Grade 3 Problems*

#### **Join Problems**

##### **Result Unknown**

Mary has 12 flowers. Bob gives her 18 more flowers. How many flowers does Mary have altogether?

##### **Change Unknown**

Mary had 12 flowers. How many more flowers does she need to have 30 flowers altogether?

##### **Start Unknown**

Mary has a bouquet of flowers. Bob gave her 18 flowers and now she has 30 flowers. How many flowers did Mary have to start with?

#### **Separate Problems**

##### **Result Unknown**

Mary had 30 flowers She gave 12 to Bob. How many flowers does Mary have left?

##### **Change Unknown**

Mary has 30 flowers. She gave some to John. Now she has 18 flowers left. How many flowers did Mary give to Bob?

### **Start Unknown**

Mary had some flowers. She gave 12 to Bob. Now she has 18 flowers. How many flowers did Mary have to start with?

### **Combine Problems**

#### **Whole Unknown**

Mary has 12 yellow flowers and 18 red flowers. How many flowers does she have in all?

#### **Part Unknown**

Mary has 30 flowers. 12 are yellow and the rest are blue. How many blue flowers does Mary have?

### **Equalize Problems**

Mary has 23 yellow flowers and 13 red flowers. If all the yellow flowers took a red flower as a partner how many red flowers would not have a partner?

Mary has 16 red flowers and some yellow flowers. All the red flowers took a yellow flower as a partner and there were 6 yellow flowers without a partner. How many yellow flowers does Mary have?

Mary had 25 red flowers and some yellow flowers. All the red flowers wanted to partner with the yellow flowers but there were 8 too few yellow flowers. How many yellow flowers did Mary have?

### **Compare Problems**

Mary has 23 red flowers and 13 yellow flowers. How many more red flowers does she have?

Mary has 17 yellow flowers and some red flowers. She has 4 more red flowers than yellow flowers. How many red flowers does she have?

Mary has 14 red flowers and some yellow flowers. She has 5 fewer yellow flowers. How many yellow flowers does she have?

Below are word problems taken directly out of the "Practice" sections in Math Makes Sense, from most of the lessons in Unit Two.

## **UNIT TWO: Whole Numbers**

### **Lesson two:**

p. 40 question #6

Chantelle and Elena collect shells. Chantelle has 4325 shells. Elena has 4235. Who has more shells? (*Result unknown, separate*)

Chantelle and Elena collect shells. Chantelle has some shells. Elena has 4235 shells. They have a difference of 90 shells in all. How many shells does Chantelle have? (*start unknown, separate*)

Chantelle and Elena collect shells. Chantelle has 4325 shells. Elena has fewer shells. They have a difference of 90 shells in all. How many shells does Elena have? (*change unknown, separate*)

### **Lesson 4**

p.48 #4

Sam wants a lunch with less than 1000 calories. He has a hamburger with 445 calories, an apple pie with 405 calories and ice cream with 270 calories. About how many calories are in his lunch? Did Sam reach his goal? (*Result unknown, join*)

Sam wants a lunch with less than 1000 calories. Sam has a hamburger with some calories, an apple pie with 405 calories and ice cream with 270 calories. For lunch he ate a total of 1120 calories? How many calories were in his apple? Did he reach his goal? (*start unknown, join*)

Sam wants a lunch with less than 1000 calories. He has a hamburger with 445 calories, an apple pie with 405 calories and ice cream with some calories. He calculated that there were 1120 calories in his lunch. How many calories were in his ice cream? Did he reach his goal? (*change unknown, join*)

### **Lesson 5**

p.50 # 3

There were 168 children in the park on Friday morning. There were 273 different children in the park on Friday afternoon. How many children were in the park on Friday? (*result unknown, join*)

There were some children in the park on Friday morning. There were 273 different children in the park on Friday afternoon. In all there were 441 children in the park on Friday. How many children were in the park in the morning? (*start unknown, join*)

There were 168 children in the park on Friday morning. There were different children in the park on Friday afternoon. In all there were 441 children in the park on Friday. How many children were in the park in the afternoon? (*change unknown, join*)

### **Lesson 6**

p. 53 #6

Rahim visits golf courses to look for stray balls. He collected 209 golf balls last month. He collected 389 golf balls last week. How many golf balls did Rahim collect in all? (*Result unknown, join*)

Rahim visits golf courses to look for stray balls. He collected some golf balls last month. He collected 389 golf balls last week. In all he collected 598 golf balls. How many golf balls did he collect last month? (*start unknown, join*)

Rahim visits golf courses to look for stray balls. He collected 209 golf balls last month. He collected some more golf balls last week. In all he collected 598 golf balls. How many golf balls did he collect last week? (*change unknown, join*)

### **Lesson 7**

p. 58 # 4

Three thousand six hundred forty-two people went to the Fall Fair on Friday. Four thousand seven hundred ninety-five people went on Saturday. How many people went to the Fall Fair on these 2 days? (*result unknown, join*)

Some people went to the Fall Fair on Friday. Four thousand seven hundred ninety-five people went on Saturday. Together eight thousand four hundred thirty-seven people went to the fair. How many people went on Friday? (*start unknown, join*)

Three thousand six hundred forty-two people went to the Fall Fair on Friday. Some more people went on Saturday. Together eight thousand four hundred thirty-seven people went to the fair. How many people went on Saturday? (*change unknown, join*)

### **Lesson 8**

p. 61 # 9

Hans had 528 paper clips. He gave 257 of them to Gertie. About how many paper clips does Hans have left? (*result unknown, separate*)

Hans had some paper clips. He gave 257 of them to Gertie. He has 271 left. How many did he have to start with? (*start unknown, separate*)

Hans had 528 paper clips. He gave some of them to Gertie. He has 271 left. How many did he give to Gertie? (*change unknown, separate*)

### **Lesson 9**

p. 63 # 3

How much change will you get from \$1000 when you buy something that costs \$680? (*result unknown, separate*)

You have some money. You buy something that costs \$680. You get \$320 back in change. How much money did you have to start with? (*start unknown, separate*)

You have \$1000. You buy something that costs you some money. You get \$320 back in change. How much money did you have to start with? (*change unknown, separate*)

### **Lesson 10**

p.67 #5

The largest gorilla has a mass of about 275kg. The largest orangutan has a mass of about 90kg. What is the difference in their masses? (*result unknown, separate*)

The largest gorilla has a large mass (weight). The largest orangutan has a mass of about 90kg. The difference in their masses is 185kg. What is the mass of the largest gorilla? (*start unknown, separate*)

The largest gorilla has a mass of about 275kg. The largest orangutan has a smaller mass. The difference in their masses is 185kg. What is the mass of the largest orangutan? (*change unknown, separate*)

### **Lesson 12**

p. 72 # 6

In 1215, the Magna Carta was signed. How many years ago was that if it is now 2009? (*result unknown, separate*)

The Magna Carta was signed in a particular year. It is now 2009. It was signed 794 years ago. What year was it signed? (*start unknown, separate*)

### **Lesson 13**

p. 75 # 2

Juan drives a truck. On Monday he left Prince George to drive 1639km to Whitehorse. On Wednesday, he left to drive 1222km to Inuvik. On Saturday, he left to drive 3149km to Yellowknife. How far did Juan travel altogether? (*result unknown, join*)

Juan drives a truck. On Monday he left Prince George to drive to Whitehorse. On Wednesday, he left to drive 1222km to Inuvik. On Saturday, he left to drive 3149km to Yellowknife. He drove 6010km in all. How many kilometers did he drive on Monday? (*start unknown, join*)

Juan drives a truck. On Monday he left Prince George to drive 1639km to Whitehorse. On Wednesday, he left to drive 1222km to Inuvik. On Saturday, he left to drive to Yellowknife. He drove 6010km in all. How many kilometers did he drive on Saturday? (*change unknown, join*)

p.75 # 3

The Lees drove 1431 to their summer home. On their return, they took the same route. They drove 613km the first day and 486km on the second day. How far would the Lees have to drive on the third day to get home? (*Change unknown, join*)

The Lees drove 1431 to their summer home. On their return, they took the same route. They drove 486km on the second day and 331km on the third day. How far would the Lees have to drive on the first day? (*start unknown, join*)

The Lees drove to their summer home. They drove 613km the first day , 486km on the second day and 331 on the third day. How far did they travel to get to their summer home? (*result unknown, join*)

### **Addition/Subtraction**

#### **Join**

Josh had 87 marbles in his bag. Mitch had 65. How many did they have when they combined them? (*result unknown*)

Josh has 87 marbles, but wants to have 100. How many more does he need to get? (*change unknown*)

Josh won 26 marbles in a game, and now he has a total of 158. How many did he start with? (*start unknown*)

#### **Separate**

Josh had 94 marbles before he gave 25 to his friend Mitch. How many does he have now? (result unknown)

Josh had 138 marbles before he gave a handful to Mitch. Now he has 129. How many did he give away? (change unknown)

Josh had a big bag of marbles, so he gave 75 to Mitch. Now he has 232 left. How many did he start with? (start unknown)

### Combine

Josh has 77 clear marbles and 36 opaque ones. How many are in his collection? (whole unknown)

Josh has 152 marbles in all. 95 are “cat eyes” and the rest are opaque. How many opaque marbles does he have? (one part unknown)

### Equalize or Compare

Josh has 77 clear marbles and 36 opaque ones. How many more clear marbles does he have?

Josh has 77 clear marbles and 36 opaque ones. When Josh paired up his clear marbles with his opaque ones, how many clear ones ended up without a partner?

## *Grade 5 Word Problems*

### **Addition and Subtraction**

#### **Change**

#### **Join**

#### ***Result unknown***

Alexander had 98 toy cars. His parents gave him 45 more toy cars for his birthday. How many toy cars will he have then?

#### ***Change unknown***

Alexander had 28 toy cars. He would like to have 150. How many more does he need to get?

#### ***Start unknown***

Alexander had some toy cars and then his sister gave him 46. Now he has 94. How many did he have to start with.

#### **Separate**

#### ***Result unknown***

Alexander had 98 toy cars. He gave his sister 36. How many does he have now?

**Change unknown**

Alexander had 66 toy cars and then he gave his sister some. He now has 24. How many did he give his sister?

**Start unknown**

Alexander had some toy cars and gave his sister 75 of them. Now he has 24 left. How many did he have to start with?

**Combine****Whole unknown**

Alexander has 75 red toy cars and 87 black toy cars. How many does he have in all?

**One part unknown**

Alexander has 130 race cars. 68 are green and the rest are blue. How many are blue?

**Equalize**

If Alexander has 63 Lego men and 45 toy cars. He wants to give each Lego man a car, how many Lego men won't get a car.

Alexander has 32 Lego men and some toy cars. All the Lego men took a toy car and there were 17 toy cars without Lego men. How many toy cars did he have?

Alexander has 43 Lego men and some toy cars. All the Lego men tried to get a car but there were 15 toys cars too few. How many toy cars did Alexander have?

**Compare**

Alexander has 97 red toy cars and 58 black toy cars. How many more red toy cars does he have?

Alexander has 34 black toy cars and some red toy cars. He has 19 more red toy cars than black toy cars. How many red toy cars does he have?

Alexander has 68 black toy cars and some red toy cars. He has 19 fewer red toy cars. How many red toy cars does Alexander have?

*Grade 5 Word Problems***Addition and Subtraction****Change****Join****Result unknown**

Rachel wrapped 31 Christmas gifts on Monday. On Tuesday she wrapped another 27 gifts. How many gifts did she wrap all together?

**Change unknown**

Rachel wrapped 49 gifts and put them under the tree. She wants to have 112 gifts under the tree by the end of the week. How many more gifts does she need to wrap?

**Start unknown**

There were some presents under the tree and Rachel added 52 gifts to the pile. Now there are 121 gifts all together under the tree. How many gifts were there before Rachel added hers?

**Separate****Result unknown**

Rachel had 86 presents. She gave away 29 to her brother Jake. How many does she have left?

**Change unknown**

Rachel had 74 gifts wrapped up and she gave some to her brother Jake. She is left with 31 presents. How many did she give to her brother?

**Start unknown**

Rachel had a huge pile of presents to put under the tree. She gave Jake 52 gifts and has 137 left in her pile. How many did she have in her pile to begin with?

**Combine****Whole unknown**

Rachel has 45 presents with ribbons and 73 presents without ribbons. How many presents does she have in all?

**One part unknown**

Rachel put 141 presents under the tree. 63 are wrapped in recycled paper and the rest are wrapped in brand new wrapping paper. How many are wrapped in the new wrapping paper?

**Equalize**

If Rachel has 58 ribbons and 73 presents and she wants to put a ribbon on each present, how many presents won't get a ribbon?

Rachel has 76 ribbons and some presents to wrap. All the presents were decorated with one ribbon, and there were still 17 ribbons left over. How many presents were there?

Rachel has 96 presents and some ribbons. She decorated all the presents with a ribbon, but still had 13 ribbons left over. How many ribbons did she have?

Rachel has 43 presents and some ribbons. She tried to decorate all the presents with a ribbon, but there were 18 ribbons too few. How many ribbons did Rachel have?

### **Compare**

Rachel has 53 red gifts and 95 green gifts. How many more green gifts does she have?

Rachel has 112 red gifts and some green gifts. She has 32 more green gifts than red gifts. How many green gifts does she have?

Rachel has 84 red gifts and some green gifts. She has 29 fewer green gifts. How many green gifts does Rachel have?

### *Grade 6/7*

### **Change**

Two friends purchased plane tickets to Jamaica. Jeff paid the full price of \$1446.75, but Sam found a seat sale and only paid \$927.45. How much cheaper was Sam's flight than Jeff's?

### **Combine**

Sam and Jeff paid \$2374.20 altogether for two flights to Jamaica. Sam paid \$927.45 on sale. Jeff paid full price. How much was Jeff's flight?

### **Compare**

Two friends, Sam and Jeff, purchased plane tickets to Jamaica for a total of \$2374.20. Sam paid less because his ticket was on sale. If Jeff paid \$519.30 more than Sam, how much was Sam's plane ticket?

### **Equalize**

Two friends pooled their money together to purchase plane tickets to Jamaica for a total cost of \$2374.20. Sam only has \$927.45, so how much of Sam's share will Jeff have to pay in addition to his own share?

# Story Problems

## Multiplication and Division

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### *Kindergarten*

#### Multiplication

The spider and Miss Muffet (black cat) decided to have a party. They each invited 2 friends. How many were at the party?

Miss Muffet (a witch) found 3 spider webs on a bush. Each web had 2 spiders on it. How many spiders were there in the webs altogether?

There are 3 gingerbread men and each have 2 buttons. How many buttons are there all together?

Mrs. Joe has 10 gingerbread cookies and 5 students. How many cookies does each student get?

Maria has 2 dolls. Each of the dolls has 2 eyes. How many eyes altogether?

John had 2 cars. Each car has 4 wheels. How many wheels altogether?

There are 5 plates with 4 cookies on each plate. How many cookies in total?

#### **Grade 1 Multiplication and Division**

#### Division

There are 6 cookies. There are 3 children. How many cookies will each child get?

There are 6 cookies to be shared among some children. Each child will get 2 cookies. How many children are there?

There are 6 cars at the playmat. Two children are playing there. How many cars will each child get?

There are 6 cars at the playmat. If the children playing there each get 2 cars how many children are there?

Division (partition) - 20 cookies need to be spread equally on 5 plates. How many cookies on each plate?

Division (quotitive) – There are 20 cookies. There needs to be 4 cookies on each plate. How many plates are needed?

### **Rates**

Multiplication – Giant cookies cost \$2 each. If Sam wants to buy 7 cookies, how much money will it cost?

Division (partitive) – If 7 cookies cost \$14. How much does each cookie cost?

Division (quotitive) – If Sam has \$14, and the giant cookies he wants to buy are \$2 each, how many cookies can he buy?

### **Comparisons: Ratio/Scale**

Multiplication – Tom has 5 times more mini cookies than Sam has big cookies. If Sam has 3 cookies, how many mini cookies does Tom have?

Division (partitive) - Tom has 5 times more mini cookies than Sam has big cookies. If Tom has 15 mini cookies how many big cookies does Sam have?

Division (quotitive) – Tom has 15 mini cookies and Sam has 3 big cookies. How many times more cookies does Tom have compared to Sam? Or... how many mini cookies does Tom have for each of Sam's big cookies

### **Grade 3 Repeat Equal Quantities**

There are four garden rows and six flowers growing in each row. How many flowers are there in the garden?

Twenty four flowers need to be planted in the garden. There are four rows. How many equal groups of flowers can be planted in each row?

There are twenty four flowers in the garden. There are six flowers in each row. How many rows of flowers are there in the garden?

### **Rates**

#### **Whole Unknown**

If flowers cost 6 cents each, how much would 4 flowers cost?

#### **Size of Group Unknown**

Mary paid 24 cents for 4 flowers, what is the cost of each flower?

## Number of Groups Unknown

Mary bought flowers for 6 cents each. She spent 24 cents. How many flowers did she buy?

## Intermediate

### Multiplication

#### *Repeat Equal Quantities*

There are 24 bags of cookies and 6 cookies in each bag. How many cookies altogether?

12 students are each making an apron and each apron needs three-quarters of a metre of fabric. How much material do we need?

#### *Use Rates*

Carrots cost \$2.25 a kilogram. How will it cost for 3.5 kilograms?

### Make Ratio Comparisons or Changes (scale)

Maya has 18 times as many stamps as Naomi. If Naomi has 39 stamps, how many does she Maya have?

If a piece of material is 80 cm long. If it is reduced to 0.6 of its original size, what will its height be?

### Division (partition/sharing) – know how many portions

#### *Repeat Equal Quantities*

There are 72 cookies and they need to be put in 6 bags. How many cookies will be in each bag?

We have 8 metres of fabric to make 9 aprons. How much fabric can we use for each apron?

#### *Use Rates*

If a 2.5-kilogram bag of carrots cost \$14.50, what is the price for one kilogram?

#### *Make Ratio Comparisons or Changes (scale)*

Maya has 8 times as many stamps as Naomi. If Maya has 96 stamps, how many does Naomi have?

A piece of material that has been reduced to 0.6 of its original size is now 48 cm long. What was its original length?

### Division (quotation/grouping) – know the size of the portions

### *Repeat Equal Quantities*

There are 48 cookies. Each bag will hold 8 cookies. How many bags will we fill?

Each apron needs three-quarters of a metre of fabric. How many aprons can we cut from 12 metres?

### *Use Rates*

Carrots cost \$3.90 a kilogram. If a bag of carrots cost \$15.50 how much will it weigh?

### *Make Ratio Comparisons or Changes (scale)*

Maya has 13 stamps. How many times as many stamps does Naomi have if she has 78?

## **Make arrays and Combinations**

### *Multiplication*

There are 5 different types of feathers and 8 different hat types. How many different hat and feather (single) combinations can we make?

### *Division*

There are several different types of hats and 6 types of feathers. If 18 different hat and feather combinations can be made, how many different types of hats must there be?

There are 6 types of hats and various types of feathers. If 18 different (single) hat and feather combinations can be made, how many different feathers are there?

## **Need Products of Measures**

### *Multiplication*

What is the area of desk 18 cm by 14.7 cm?

### *Division*

A desk with an area of 120.4 sq centimetres has one side 14 cm long. How long is the adjacent side?

A desk with an area of 120.4 sq centimetres has one side 8.6 cm long. How long is the adjacent side?

## **Multiplication and Division Problems**

### **Multiplication**

#### *Repeat Equal Quantities*

There are 19 presents and 6 bows on each present. How many bows altogether?

15 presents will each need one-half meter of ribbon. How much ribbon do we need in all?

*Use Rates*

Ribbon costs \$3.50 per meter. How much will it cost for 4 meters of ribbon?

**Make Ratio Comparisons or Changes (scale)**

Rachel has 12 times as many presents wrapped as Jake. If Jake has wrapped 13 presents, how many has Rachel wrapped?

A gift box is 70 cm high. If it is reduced to 0.6 of its original size, what will its height be?

**Division (partition/sharing) – know how many portions**

*Repeat Equal Quantities*

There are 63 presents and they need to be put in 7 stockings. How many presents will be in each stocking?

Rachel has 42 meters of ribbon to wrap 9 presents. How much ribbon can she use for each present?

*Use Rates*

If a 5 kg present costs \$12 to send in the mail, what is the price to mail a 1 kg present?

*Make Ratio Comparisons or Changes (scale)*

Rachel has 4 times as many gifts wrapped as her brother Jake. If Rachel has 82 wrapped, how many gifts has Jake wrapped?

A gift box was shrunk in a shrinking machine to 0.7 of its original size. If it is now 34 cm high, what was its original height?

**Division (quotation/grouping) – know the size of the portions**

*Repeat Equal Quantities*

There are 54 gifts. Each stocking will hold 8 gifts. How many stockings can Santa fill?

Each present needs 2.5 meters of ribbon. How many presents can Rachel wrap with 20 meters of ribbon?

*Use Rates*

Gift boxes cost \$3 a kg to send in the mail. If the pile of parcels cost \$49 in total, how much did the pile of gift boxes weigh?

*Make Ratio Comparisons or Changes (scale)*

Rachel has 8 presents. How many times as many presents does Jake have if he has 97?

A 90 cm high gift box is reduced to 18 cm by the shrinking machine. What is the reduction ratio?

## **Make arrays and Combinations**

### *Multiplication*

There are 4 different sized gift boxes and 6 different kinds of wrapping paper. How many different types of wrapped gifts can we make?

### *Division*

There are several different types of wrapping paper and 7 styles of gift boxes. If 35 unique presents are wrapped, how many types of wrapping paper must there be?

There are 8 different kinds of wrapping paper and various styles of gift box. If 48 unique presents are wrapped, how many different styles of gift box are there?

## **Need Products of Measures**

### *Multiplication*

What is the area of the top of a gift box measuring 22 cm by 46 cm?

### *Division*

A gift box top with an area of 168 sq centimetres has one side 21 cm long. How long is the adjacent side?

A gift box top with an area of 168 sq centimetres has one side 8 cm long. How long is the adjacent side?