Year 3 Maths – week beginning 13.7.2020					
Theme	**Formal methods for calculation (Lesson 6 of 6) CONSOLIDATION LESSON Division**	**Word Problems (Lesson 1 of 3) Addition and Subtraction**	**Word Problems (Lesson 2 of 3) Multiplication**	**Word Problems (Lesson 3 of 3) Division**	**Place Value (Lesson 1 of 1) Numbers to 10,000**
Factual fluency (to aid fluency)	Multiplication and division facts practice (10 questions)	Addition practice (10 questions)	8 times tables practice (10 questions)	Equivalent fractions practice (10 questions)	Numbers to 1,000 (10 questions)
Problem/ activity of the day **Remember, just like in class, you can still show the depth of your knowledge** LINK	**(Lesson 1 resources below)** **MAKING LINKS:** Last week, you practised using a written method for division. Today you are going to build on this by dividing with regrouping. **THINK: (support below)** My friend had 52 sweets. She put them equally into 4 bags. How many sweets were there in each bag? *If you have online parent access, this lesson is based on textbook 3A, chapter 4, lesson 7.* **SEE: (model below)** Watch lesson video here. **DO:** Use what you have learnt today to solve: Part 1: Draw tens and ones to solve the calculations below. Check your answers before moving onto: Part 2: Use the written method to solve the calculations below. Use drawings alongside if they help you.	**(Lesson 2 resources below)** **MAKING LINKS:** Last week, you practised using the column method to add and subtract. Today, you're going to use this when solving word problems. To remind yourself of methods for addition and subtraction, re-watch the videos from last week on addition and subtraction. **THINK: (support below)** Ella baked 400 cupcakes. She gave 270 cupcakes away. How many cupcakes did she have left? *If you have online parent access, this lesson is based on textbook 3A, chapter 2, lessons 21 and 23.* **SEE: (model below)** Watch lesson video here. **DO:** Use what you have learnt today to solve: Part 1: Solve the problems using the bar model to help you work out what you need to do. Check your answers before moving onto: Part 2: Draw a bar model for each problem and solve it.	**(Lesson 3 resources below)** **MAKING LINKS:** Yesterday, you practiced solving addition and subtraction problems. Last week, you practised using the formal written method for multiplication. Today, you're going to solve word problems involving multiplication. To remind yourself of methods for multiplication, re-watch the videos from last week on multiplication here and here. **THINK: (support below)** There are 16 yellow crayons on the table. There are twice as many purple crayons as yellow crayons on another table. a) How many purple crayons are there? b) How many crayons are there altogether? *If you have online parent access, this lesson is based on textbook 3A, chapter 4, lesson 9.* **SEE: (model below)** Watch lesson video here. **DO:** Use what you have learnt today to solve: Part 1: Solve the problems using the bar model to help you work out what you need to do. Check your answers before moving onto: Part 2: Draw a bar model for each problem and solve it.	**(Lesson 4 resources below)** **MAKING LINKS:** Yesterday, you practiced solving multiplication problems. On Friday and Monday, you practised dividing. Today, you're going to solve word problems involving division. To remind yourself of methods for division, re-watch the videos from last week and earlier in the week on division here and here. **THINK: (support below)** Poppy has 36 marbles. She has twice as many marbles as Rory has. a) How many marbles does Rory have? b) How many marbles do the children have altogether? *If you have online parent access, this lesson is based on textbook 3A, chapter 4, lesson 10.* **SEE: (model below)** Watch lesson video here. **DO:** Use what you have learnt today to solve: Part 1: Solve the problems using the bar model to help you work out what you need to do. Check your answers before moving onto: Part 2: Draw a bar model for each problem and solve it.	**(Lesson 5 resources below)** **MAKING LINKS:** This year, you have learnt to understand and use numbers to 1,000. You learnt to recognise how many hundreds, tens and ones there are in a 3-digit number, and what each of these digits stands for. For example, the digit 3 in 346 stands for 300. The digit 4 stands for 40, and the digit 6 stands for 6. Today, you are going to learn to count in thousands up to 10,000. **THINK: (support below)** There are 100 cherries in a box. There are 10 boxes in one row. How many cherries are there in one row? How many cherries are there in 10 rows? **SEE: (model below)** Watch lesson video here. **DO:** Use what you have learnt today to solve: Part 1: Answer the questions below. Check your answers before moving onto: Part 2: Complete the number patterns below.
Methods, tips, clues & checks	**Day 1 resources and answers below**	**Day 2 resources and answers below**	**Day 3 resources and answers below**	**Day 4 resources and answers below**	**Day 5 resources and answers below**

See below for resources to support you to THINK-SEE-DO

DAY 1 RESOURCES:

Quality First Education Trust

THINK: *If you have online parent access, this lesson is based on textbook 3A, chapter 4, lesson 7.*

My friend had 52 sweets. She put them equally into 4 bags. How many sweets were there in each bag?

DO:

Part 1: Draw tens and ones like in the See box to solve these calculations.

a) 92 ÷ 2
b) 72 ÷ 3
c) 56 ÷ 4
d) 75 ÷ 5
e) 96 ÷ 4

Check your answers below.

Part 2: Use the written method to solve these calculations. If you find it challenging to work out how to partition the number at first, draw tens and ones to help you.

a) 78 ÷ 2
b) 87 ÷ 3
c) 68 ÷ 4
d) 85 ÷ 5
e) 96 ÷ 8
f) 72 ÷ 3

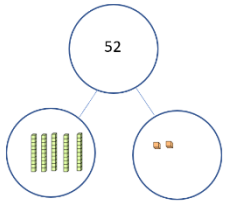
Cut out the tens and ones on the next page and use these to help you partition the whole number and then divide.

SEE:

Watch the lesson video here.

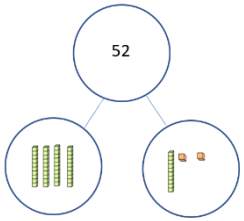
To find the number of sweets in each bag, divide **52** by 4.

Step 1: Decide how to partition 52 to make it easier for us to divide.



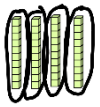
If I partition 52 into 50 and 2, this isn't very helpful because I can't easily divide 50 by 4 and I can't easily divide 2 by 4.

Let's try another way.



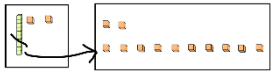
I have partitioned **52** into 40 and 12.
This is more helpful because I can easily divide 40 by 4 and I can easily divide 12 by 4.

Step 2: Divide the **tens** by 4.



40 ÷ 4 = 10

Step 3: Regroup 1 ten into 10 ones.

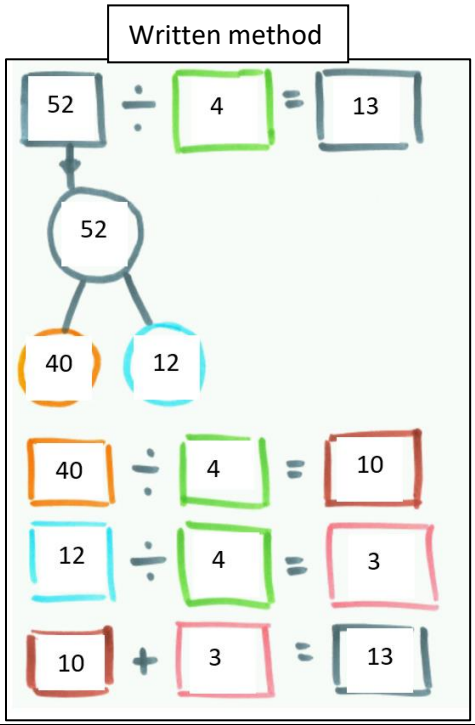


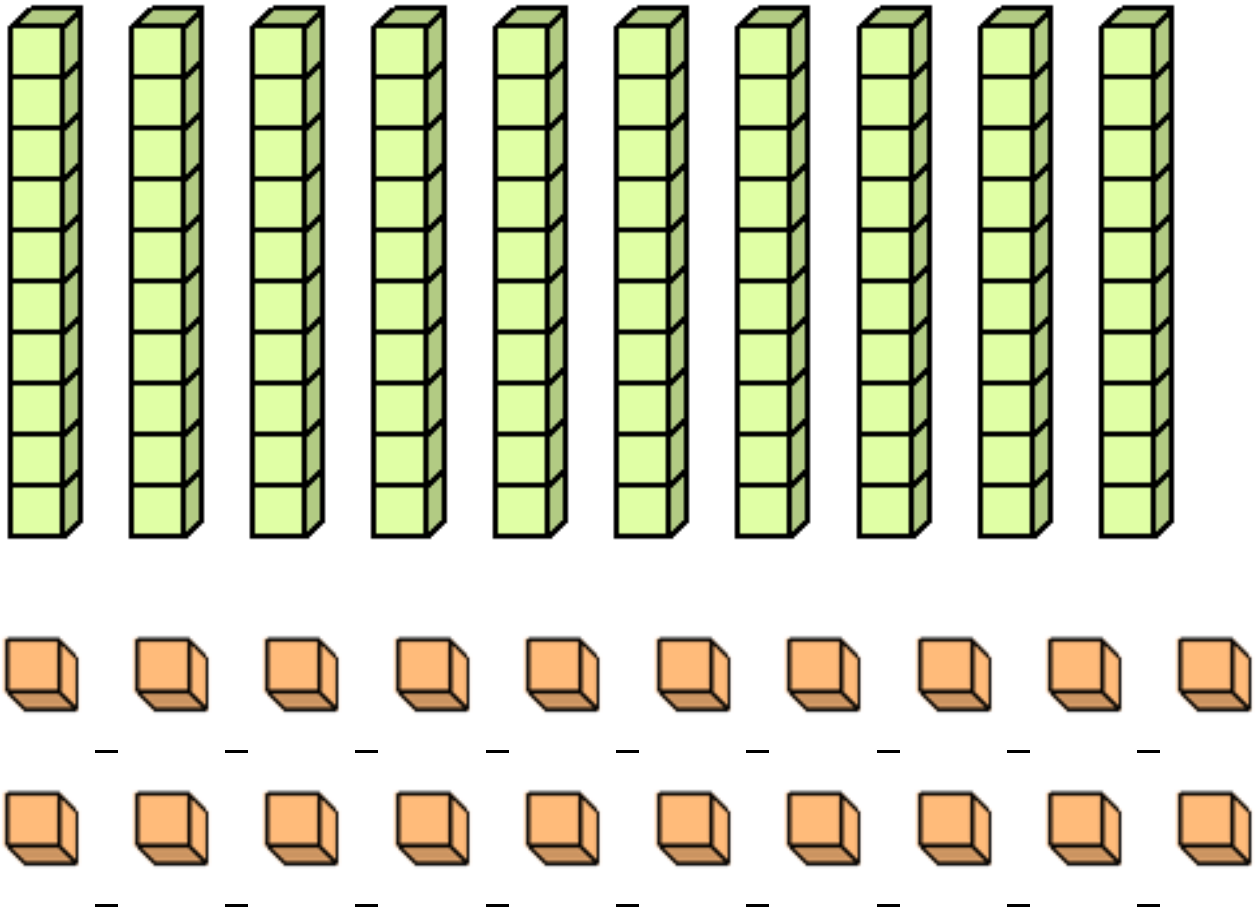
Step 4: Divide the **ones** by 4.

12 ÷ 4 = 3

Step 5: Add the results.
10 + 3 = **13**

There are **13** sweets in each bag.





DAY 2 RESOURCES:

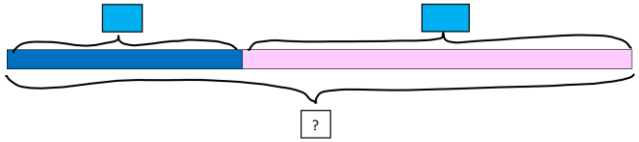
THINK: *If you have online parent access, this lesson is based on textbook 3A, chapter 2, lessons 21 and 23.*

Ella baked 400 cupcakes. She gave 270 cupcakes away. How many cupcakes did Ella have left?

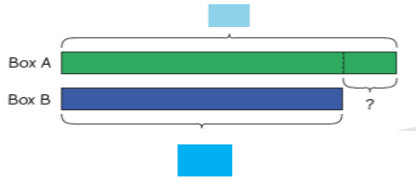
DO:

Part 1: Solve these problems. Use the bar models to help you work out what you need to do.

a) Holly went berry picking. She picked 127 blueberries and 235 strawberries. How many berries did she pick altogether?



b) There are 140 rubbers in Box A and 96 rubbers in Box B. How many fewer rubbers are there in Box B than in Box A?



Check your answers below.

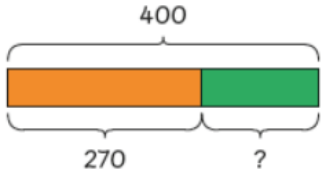
Part 2: Draw a bar model and solve each of these problems. Remember to give your answer in a full sentence.

a) Fred has read 137 pages of his book. He has 269 pages left to read. How many pages are there in the book?
b) There are 534 pieces of fruit in a crate. 346 of them are bananas and the rest are pears. How many pears are there?
c) There are 487 pupils in Moon Primary School. There are 139 less pupils in Sky Primary School. How many pupils are there in Sky Primary School?

You might find it helpful to use strips of paper to make the bar model rather than draw it.

SEE: Watch the lesson video here.

We know the whole number of cupcakes is **400**, so this is the whole bar. The part that she gave away is **270**. This is a bit more than half of 400, so I'll make sure this bar is a bit longer than half of the whole bar.



The bar model helps me see that to find out how many she had left, I need to subtract **270** from **400**.

	H	T	O
	3	10	
	~~4~~	~~0~~	0
-	2	7	0
	1	3	0

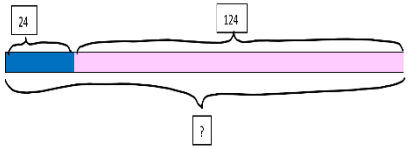
We can use the column method to subtract.
If you need a reminder for using the column method, re-watch this video for addition or this video for subtraction from last week.

Ella had 130 cupcakes left.

We always write a statement to answer the question when solving word problems.

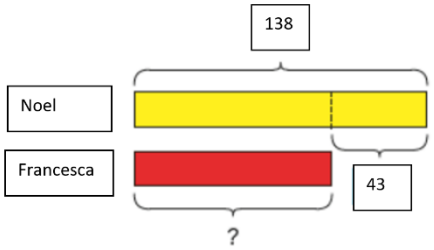
Let's have a look at bar models we might draw for some different problems.

*There are **24** balls in a jar. Max puts 124 more balls into the jar. How many balls are there in the jar now?*



For this problem, we know the two parts, but we don't know the whole. I can see from the bar model that I need to add the two parts together to find the whole number.

*Noel collects stamps. He has 138 stamps. Francesca has **43** fewer stamps than Noel. How many stamps does Francesca have?*



For this problem, because we are comparing the number of stamps that Noel and Francesca have, it is helpful to draw 2 separate bars. This means we can see on the bar model how many more or how many fewer they have.

DAY 3 RESOURCES:

Quality First Education Trust

THINK: *If you have online parent access, this lesson is based on textbook 3A, chapter 4, lesson 9.*

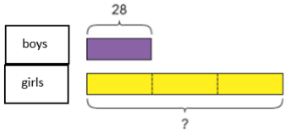
There are 16 yellow crayons on the table.
There are twice as many purple crayons as yellow crayons on another table.
a) How many purple crayons are there?
b) How many crayons are there altogether?

DO:

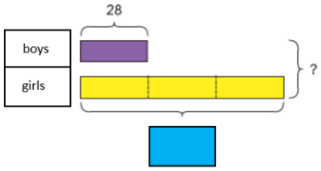
Part 1: Solve these problems. Use the bar models to help you work out what you need to do.

There are 28 boys in a football club. There are 3 times as many girls as there are boys.

a) How many girls are there?



b) How many children are there altogether?



Check your answers below.

Part 2: Draw a bar model and solve each of these problems. Remember to give your answer in a full sentence.

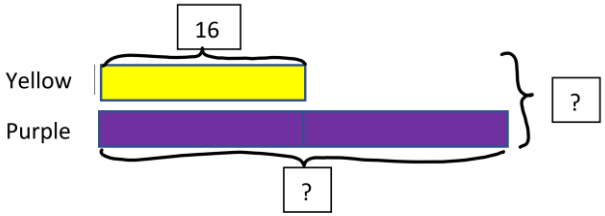
1. A farmer has 46 sheep. He has twice as many chickens as sheep.
   a) How many chickens does he have?
   b) How many sheep and chickens does he have in total?
2. There are 39 blue beads in a box. There are 4 times as many silver beads as blue beads in the box.
   a) How many silver beads are there in the box?
   b) How many beads are there altogether?

Just like yesterday, you might find it helpful to make the bar models using strips of paper rather than draw them.

SEE:

Watch the lesson video here.

Let's draw a bar model to help us understand what to do to solve the problem.



I know that there are **twice** as many **purple crayons** as **yellow crayons**, so for the bar representing the purple crayons, I can draw **two** lots of the bar representing the 16 yellow crayons.

I can label how many **yellow crayons** there are (**16**), but I don't know how many **purple crayons** there are. I show this with a question mark.
I also don't know how many crayons there are altogether. I can show this by joining both the yellow crayons and the purple crayons together, and write a question mark.

a) To find the number of purple crayons, I can see that I need two lots of 16, or 16 x 2.
16 x 2 = 32
There are 32 purple crayons.

	T	O
	1	6
x		2
	1	2
+	2	0
	3	2

b) To find the number of crayons altogether, I can see that I need to add the yellow crayons and the purple crayons together.
16 + 32 = 48
There are 48 crayons altogether.

	T	O
	1	6
+	3	2
	4	8

DAY 4 RESOURCES:

Quality First Education Trust

THINK: *If you have online parent access, this lesson is based on textbook 3A, chapter 4, lesson 10.*

Poppy has 36 marbles.
She has twice as many marbles as Rory has.

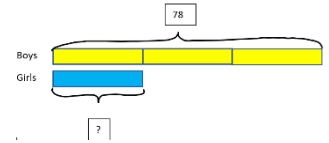
a) How many marbles does Rory have?
b) How many marbles do the children have altogether?

DO:

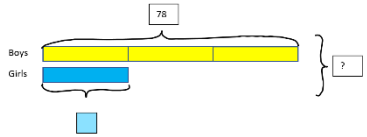
Part 1: Solve these problems. Use the bar models to help you work out what you need to do.

There are 78 boys in the playground. There are three times as many boys as there are girls in the playground.

a) How many girls are there in the playground?



b) How many children are there in the playground?



Check your answers below.

Part 2: Draw a bar model and solve each of these problems.

Remember to give your answer in a full sentence.

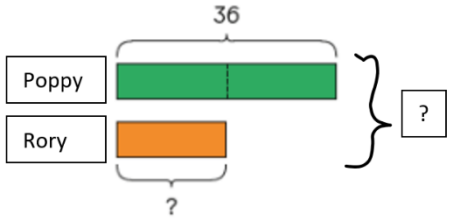
1. There were 76 green balloons at a party. There were twice as many green balloons as orange balloons.
   a) How many orange balloons were there?
   b) How many balloons were there altogether?
2. Ali has 68 football cards. Ali has four times as many as Noah.
   a) How many football cards does Noah have?
   b) How many football cards do they have altogether?

You might find it helpful to make the bar models using strips of paper instead of drawing them.

SEE:

Watch the lesson video here.

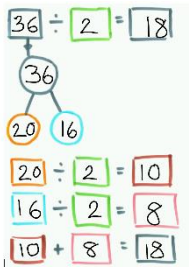
Let's draw a bar model to help us understand what to do to solve the problem.



I know that **Poppy** has **twice** as many marbles as **Rory**, so **Poppy** has **two** lots of **Rory**'s bar.

I know that **Poppy** has **36 marbles**, so I can label this. I don't know how many **Rory** has so I label this with a **question mark**.
I also don't know how many marbles they have **altogether**, so I join the bar representing Poppy's marbles and the bar representing Rory's marbles together, and label this with a **question mark**.

a) To find out how many marbles Rory has, I can see that I need to **divide** Poppy's 36 marbles by 2.
36 ÷ 2 = **18**
Rory has 18 marbles.



b) To find out how many marbles they have altogether, I can see that I need to **add** Poppy's 36 marbles and Rory's 18 marbles.
36 + **18** = **54**
The children have 54 marbles altogether.

	T	O
	3	6
+	1	8
	5	4

DAY 5 RESOURCES:

Quality First Education Trust

THINK:

There are 100 cherries in a box.
There are 10 boxes in a row.
How many cherries are there in one row?
How many cherries are there in 10 rows?

DO:

Part 1:

Count and write the number shown.

a) 

b) 

c) 

Check your answers before moving onto:

Part 2:

Complete the number patterns.

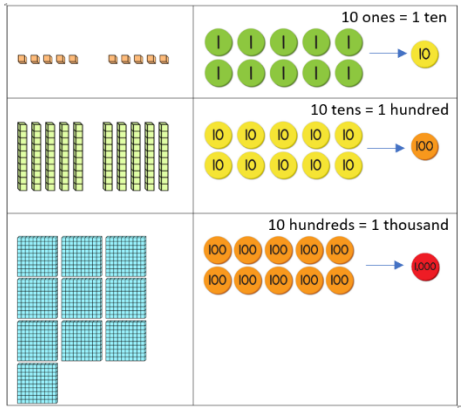
a) 1,000, 2,000, _____, _____, 5,000, _____
b) 9,000, _____, 7,000, _____, 5,000, _____
c) 2,000, _____, _____, _____, 10,000
d) _____, 4,000, _____, _____, 7,000

Cut out the place value counters on the next page and use these to help you with today's lesson.

SEE:

Watch the lesson video here.

In Years 1, 2 and 3, you have used Dienes (hundreds, tens and ones) to make numbers.
In Year 4, you will use place value counters to make numbers.



Let's find out how many cherries are in one row.

100, 200, 300, 400, 500, 600, 700, 800, 900, 1,000

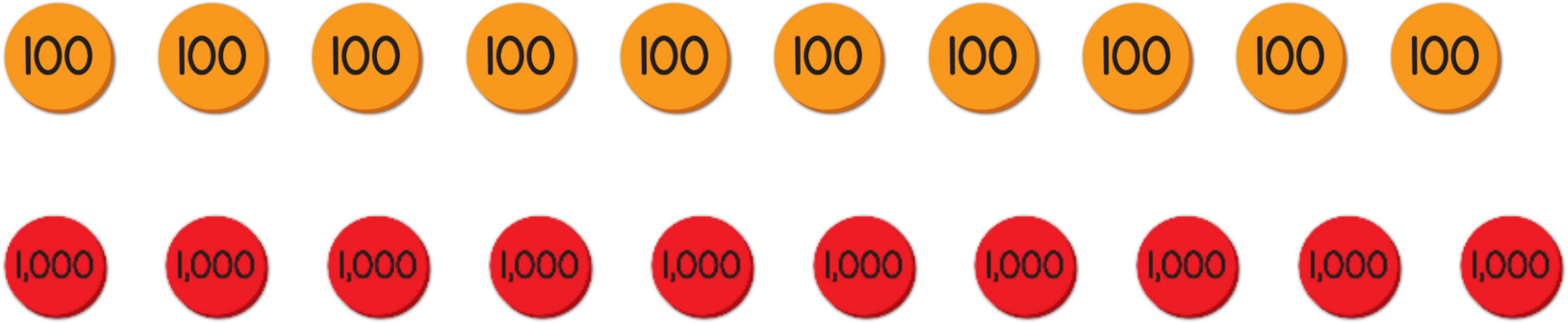
There are 1,000 cherries in one row.

Let's find out how many cherries are in 10 rows.

1 thousand	1,000 One thousand
2 thousands	2,000 Two thousand
3 thousands	3,000 Three thousand
4 thousands	4,000 Four thousand
5 thousands	5,000 Five thousand

6 thousands	6,000 Six thousand
7 thousands	7,000 Seven thousand
8 thousands	8,000 Eight thousand
9 thousands	9,000 Nine thousand
10 thousands	10,000 Ten thousand 10 thousands = 10,000

There are 10,000 cherries in 10 rows.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Quality First Education Trust

ANSWERS – part 1:

Day 1	Day 2	Day 3	Day 4	Day 5
a) 92 ÷ 2 = 46 b) 72 ÷ 3 = 24 c) 56 ÷ 4 = 14 d) 75 ÷ 5 = 15 e) 96 ÷ 4 = 24	a) Holly picked 362 berries altogether. b) There are 44 fewer rubbers in Box B than in Box A.	a) There are 84 girls. b) There are 112 children altogether.	a) There are 26 girls in the playground. b) There are 104 children in the playground.	a) 3,000 b) 4,000 c) 10,000

ANSWERS – part 2:

Day 1	Day 2	Day 3	Day 4	Day 5
a) 78 ÷ 2 = 39 b) 87 ÷ 3 = 29 c) 68 ÷ 4 = 17 d) 85 ÷ 5 = 17 e) 96 ÷ 8 = 12 f) 72 ÷ 3 = 24	a) There are 406 pages in the book. b) There are 188 pears. c) There are 348 pupils in Sky Primary School.	Q1. a) He has 92 chickens. b) He has 138 sheep and chickens in total. Q2. a) There are 156 silver beads in the box. b) There are 195 beads altogether.	Q1. a) There are 38 orange balloons. b) There are 114 balloons altogether. Q2. a) Noah has 17 football cards. b) They have 85 football cards altogether.	a) 1,000, 2,000, 3,000, 4,000, 5,000, 6,000 b) 9,000, 8,000, 7,000, 6,000, 5,000, 4,000 c) 2,000, 4,000, 6,000, 8,000, 10,000 d) 3,000, 4,000, 5,000, 6,000, 7,000