

Year 2 maths – Summer 2 Week beginning: 29.6.20

YOU ARE NOT USING YOUR MATHS NO PROBLEM BOOK THIS WEEK!

Theme	Word problems Lesson 1 (of 5) Using formal addition	Word problems Lesson 2 (of 5) Using formal subtraction	Word problems Lesson 3 (of 5) Using multiplication	Word problems Lesson 4 (of 5) Using division	Word problems Lesson 5 (of 5) Mixed operations
Factual fluency (to aid fluency)	<u>Write addition sentences to describe pictures</u> (Complete 10 questions)	<u>Subtract multiples of 10</u> (Complete 10 questions)	<u>Multiplication sentences</u> (Complete 10 questions)	<u>Division facts</u> (Complete 5 questions)	<u>Addition and subtraction word problems</u> (Complete 10 questions)
Problem/activity of the day	<p>(Lesson 1 resources below) MAKING LINKS: We have been learning to solve many different types of word problems this year, using bar models to help us. This week we are going to consolidate our learning.</p> <p>THINK: (support below) Can you help me with this problem? Vinnie has 15 stamps. Dominic has 12 more stamps than Vinnie. How many stamps does Dominic have?</p>  <p>SEE: (model below) Watch this video to see how to solve the problem. If you have forgotten how to use formal addition, go here to remind yourself how!</p> <p>DO: Now try to solve the problems below.</p>	<p>(Lesson 2 resources below) MAKING LINKS: Yesterday, you were solving word problems involving addition. Today you are going to solve word problems involving subtraction.</p> <p>THINK: (support below) Can you help me with this problem? The blue ribbon is 42cm long. The blue ribbon is 12cm longer than the red ribbon. How long is the red ribbon?</p>  <p>SEE: (model below) Watch this video to see how to weigh the items. If you have forgotten how to use formal subtraction, go here to remind yourself how!</p> <p>DO: Now try to solve the problems below.</p>	<p>(Lesson 3 resources below) MAKING LINKS: Yesterday, you were solving word problems involving subtraction. Today you are going to solve word problems involving multiplication.</p> <p>THINK:(support below) Can you help me with this problem? Jess sticks 5 stickers in a row. One sticker is 2cm long. What is the total length of the row of stickers?</p>  <p>SEE: (model below) Watch this video to see how to solve problems like these. Remind yourself of using multiplication methods here.</p> <p>DO: Now try to solve the problems below.</p>	<p>(Lesson 4 resources below) MAKING LINKS: Yesterday, you were solving word problems involving multiplication. Today, you are going to solve word problems involving division.</p> <p>THINK:(support below) Can you help me with this problem? A carpenter has a piece of wood that is 10m long. He cuts it into 5 pieces. Each piece is the same length. How long is each piece of wood?</p>  <p>SEE: (model below) Watch this video to see how to solve problems like these. Remind yourself of using division methods here.</p> <p>DO: Now try to solve the problems below.</p>	<p>(Lesson 5 resources below) MAKING LINKS: This week you have solved word problems involving all four operations. Today you will have a mixture of word problems to solve using all four operations.</p> <p>THINK:(support below) Can you help me solve this problem? Rosa baked 67 strawberry tarts. She gave 34 tarts away. How many tarts did Rosa have left?</p>  <p>SEE: (model below) You can watch any of the other videos again from this week to support you in your learning today. Remind yourself of the different methods here.</p> <p>DO: Now try to solve the problems below.</p>
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



Quality First Education Trust

DAY 1 RESOURCES:

THINK: Can you help me with this problem? Vinnie has 15 stamps. Dominic has 12 more stamps than Vinnie. How many stamps does Dominic have?

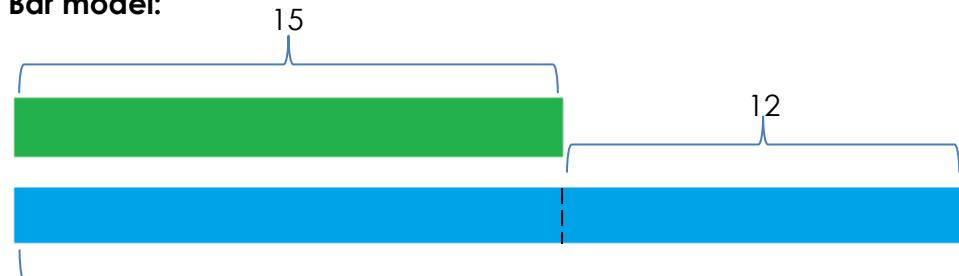


SEE: Optional [video](#) link.

We can use bar models to help us solve addition word problems. The word **more** in the word problem tells me I need to **add** the numbers together because Dominic has more than Vinnie.

I am going to use bar models to represent this problem. **Green is for Vinnie** and **blue is for Dominic**.

Bar model:



Equation: $15 + 12 = 27$

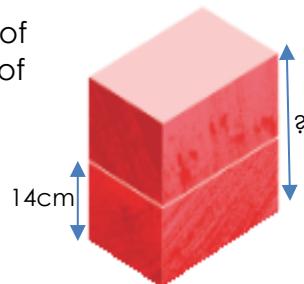
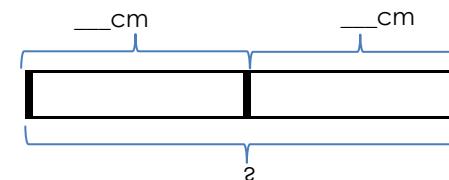
$$\begin{array}{r} 15 \\ + 12 \\ \hline 27 \end{array}$$

Statement: Dominic has 27 stamps altogether.

We can use the formal method of addition to add together two 2-digit numbers.

DO: Solve these word problems using bar models to help you.

- 1) Adam stacks 2 identical boxes. The height of each box is 14cm. What is the total height of the stack of boxes?



Bar model:

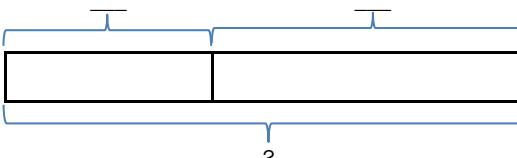
Equation: _____

Statement: _____

- 2) There are 28 basketballs and 51 footballs in the sports cupboard. How many basketballs and footballs are there altogether?



Bar model:



Equation: _____

Statement: _____

Try to draw your own bar model to solve these next two questions:

- 3) A red shirt costs £17 and a blue shirt costs £29. How much do the two shirts cost altogether?
- 4) The bowl weighs 38g and the grapes weigh 54g. If the grapes are in the bowl, how much do the bowl and grapes weigh altogether?

Deepening: Create your own word problem for an adult in your household to solve!



DAY 2 RESOURCES:

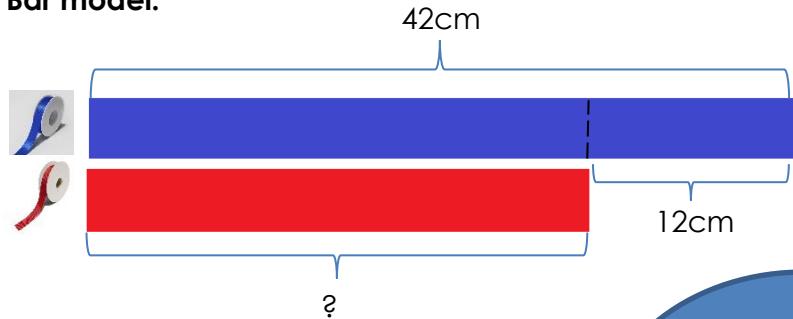
THINK: Can you help me with this problem? The blue ribbon is 42cm long. The blue ribbon is 12cm longer than the red ribbon. How long is the red ribbon?



SEE: Optional [video](#) link.

We can use bar models to help us solve subtraction word problems. The word **longer** tells me that the blue ribbon is bigger than the red ribbon so we need to **take away** to find the answer. The red ribbon is shorter than the blue ribbon.

Bar model:



Equation: $42 - 12 = 30$

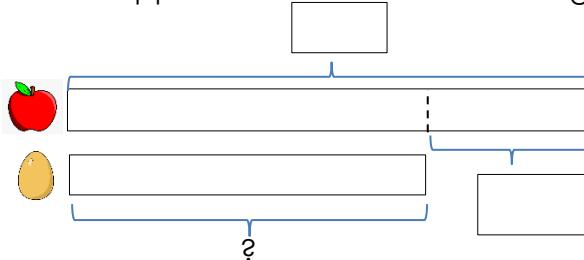
$$\begin{array}{r} 42 \\ - 12 \\ \hline 30 \end{array}$$

We can use the formal method of subtraction to subtract a 2-digit number from another 2-digit number.

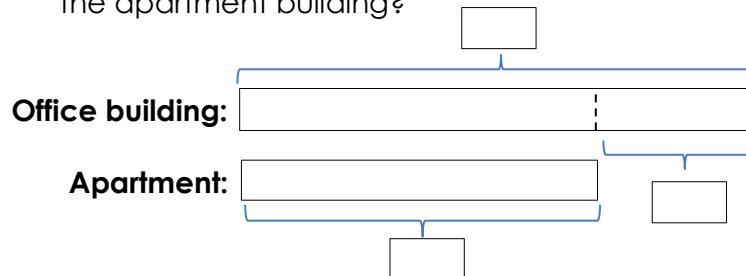
Statement: The red ribbon is 30cm long.

DO: Solve these word problems using bar models to help you. Make sure you do bar model, equation, statement for each word problem.

1. The mass of an apple is 66g. The mass of an egg is 15g **less** than the apple. What is the mass of the egg?



2. An office building is 45m tall. An apartment building next door to the office building is 13m **shorter** than the office building. How tall is the apartment building?



Try to draw your own bar models to solve these next two questions. You might need to use renaming for some of these so if you've forgotten how to do this, follow this [link](#) to remind you:

3. A ruler is 35cm long. A pencil is 17cm shorter than the ruler. How long is the pencil?
4. A dog is 73cm tall. A cat is 45cm shorter than the dog. How tall is the cat?

Deepening: Mr Hughes had 38 footballs and 24 tennis balls in the PE cupboard. He then gave 16 of all the balls to Miss Joslin. How many balls does Mr Hughes have left?



DAY 3 RESOURCES:

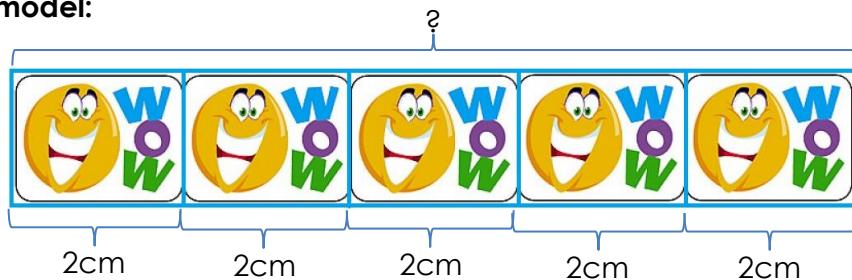
THINK: Can you help me with this problem? Jess sticks 5 stickers in a row. One sticker is 2cm long. What is the total length of the row of stickers?



SEE: Optional [video](#) link.

We can use bar models to help us solve multiplication word problems. This bar model will look a little different to the ones we have used in the past two days. This bar model shows 5 groups of 2 because each sticker is 2cm long.

Bar model:



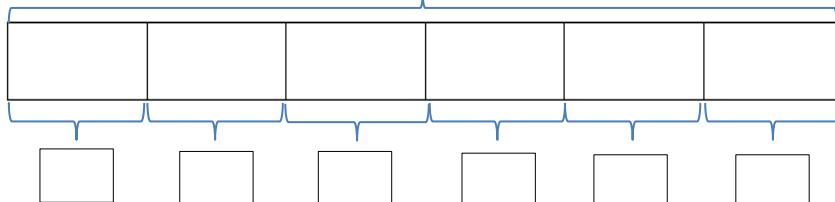
$$\text{Equation: } 5 \times 2 = 10$$

Statement: The total length of the row of stickers is 10cm long.

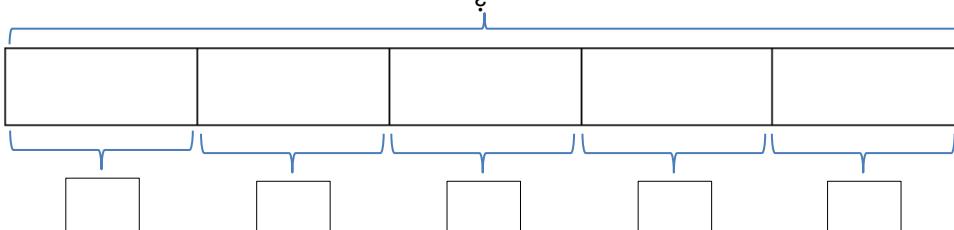
We can write a multiplication equation to represent this problem. I can count in my 2s to find the answer... 2, 4, 6, 8, 10.

DO: Solve these word problems using bar models to help you. Make sure you do bar model, equation, statement for each word problem.

1. Katie puts 6 toothpicks in one line. Each toothpick is 5cm long. What is the length of the line of toothpicks?



2. 5 identical pens are arranged in one line. Each pencil is 9cm long. What is the length of the line of pencils?



Try to draw your own bar models to solve these next two questions.

3. A wooden plank is cut into 5 pieces of equal length. Each piece is 2cm. How long was the wooden plank before it was cut?
4. 10 identical tables are joined together to form one long table. Each table is 2m long. What is the length of the long table?

Deepening: Fred has 3 bags of sweets. Each bag has 4 sweets inside. He gave 2 sweets to his friend Sam. How many sweets does Fred have left?



DAY 4 RESOURCES:

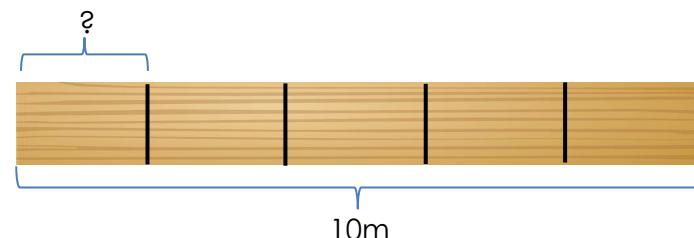
THINK: Can you help me with this problem? A carpenter has a piece of wood that is 10m long. He cuts it into 5 pieces. Each piece is the same length. How long is each piece of wood?



SEE: Optional [video](#) link.

We can use bar models to help us solve division word problems. We know that the length of the piece of wood is 10m long. We also know that the carpenter cuts it into 5 equal pieces therefore we are dividing.

Bar model:



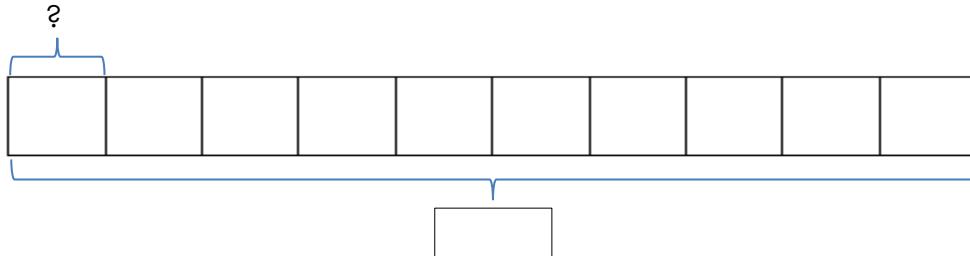
$$\text{Equation: } 10 \div 5 = 2$$

Statement: Each piece of wood is 2m long.

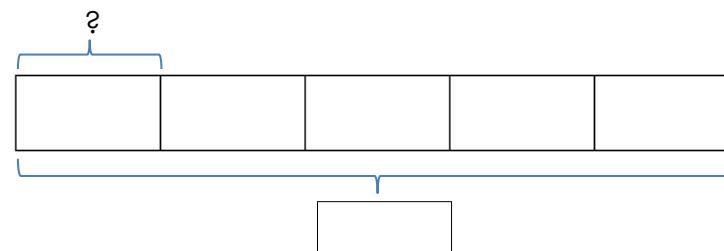
We can write a division equation to represent this problem. I know that $2 \times 5 = 10$ so $10 \div 5 = 2$. I used the inverse operation to help me work it out.

DO: Solve these word problems using bar models to help you. Make sure you do bar model, equation, statement for each word problem.

1. A rope is 30m long. It is cut into 10 pieces of equal length. What is the length of each piece?



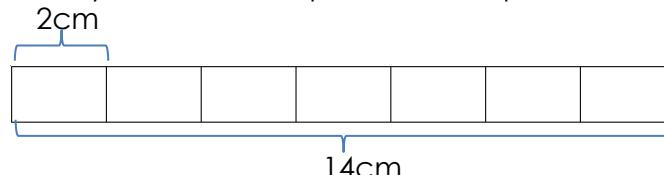
2. Joe uses 45cm of tape to wrap 5 identical presents. What is the length of tape he uses to wrap 1 present?



Try to draw your own bar models to solve these next two questions.

3. A 20m wire is cut into 5 parts of the same length. How long is each part of wire?
4. 10 identical chairs are put into a line. The line is 40m long. How long is each chair?

Deepening: Write your own word problem to represent this bar model:



DAY 5 RESOURCES:

THINK: Can you help me with this problem? Rosa baked 67 strawberry tarts. She gave 34 tarts away. How many tarts did Rosa have left?

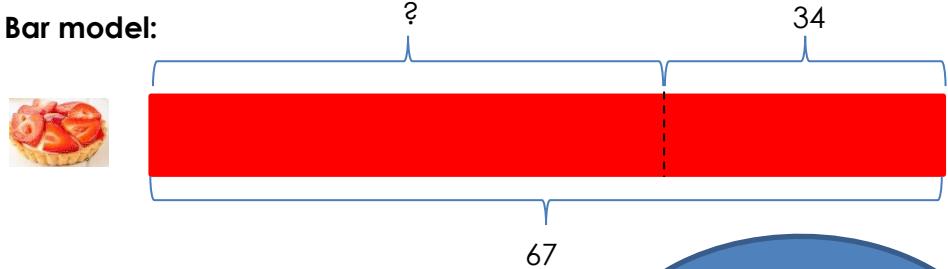


SEE: You can watch any of the other videos again from this week to support you in your learning today.

This week you have solved word problems involving all operations. Today you will need to read the problems carefully to figure out if you need to add, subtract, multiply or divide to solve each problem.

For this problem, the word **left** tells me I need to subtract. If she has given tarts **away** then we are subtracting. I can draw a bar model to help me solve this.

Bar model:



$$\text{Equation: } 67 - 34 = 33$$

$$\begin{array}{r} 67 \\ - 34 \\ \hline 33 \end{array}$$

Statement: Rosa had 33 strawberry tarts left.

I've chosen to use the formal method of subtraction to find my answer today.

DO: Solve these word problems using bar models to help you. Make sure you do bar model, equation, statement for each word problem. You need to decide if you are adding, subtracting, multiplying or dividing for each question. Read the questions very **carefully!**

- George had 53 stickers. He bought 26 more stickers. How many stickers does he have altogether?



- Charlie has 87 toy cars. He gives his friend Greg 42 of his toy cars. How many does Charlie have left?



- Ethan has 8 bags of sweets. Each bag has 5 sweets in it. How many sweets does Ethan have altogether?



- The total mass of 5 equal bags of flour is 50kg. Each bag of flour has the same mass. What is the mass of each bag of flour?

Deepening: Lottie has 52 sweets. She shares them out between 10 of her friends. How many sweets will her friends get if they all get an equal amount? Will there be any sweets leftover?

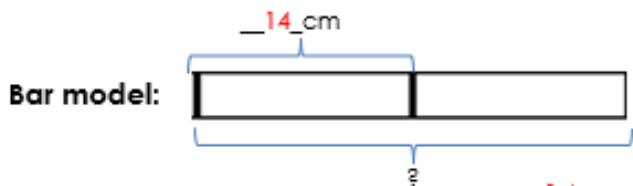


ANSWERS:

Day 1:

DO: Solve these word problems using bar models to help you.

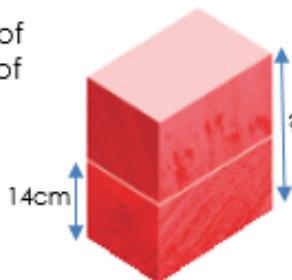
- 1) Adam stacks 2 identical boxes. The height of each box is 14cm. What is the total height of the stack of boxes?



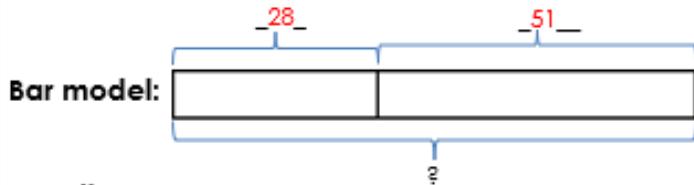
Equation: $14 + 14 = 28$

$$\begin{array}{r} 14 \\ + 14 \\ \hline 28 \end{array}$$

Statement: The total height of the stack of boxes is 28cm.



- 2) There are 28 basketballs and 51 footballs in the sports cupboard. How many basketballs and footballs are there altogether?



Equation: $28 + 51 = 79$



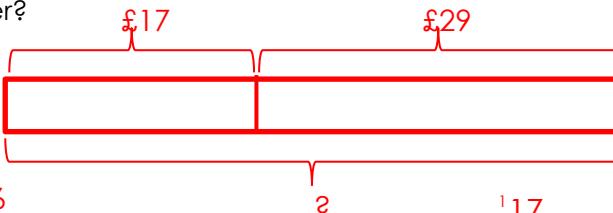
$$\begin{array}{r} 28 \\ + 51 \\ \hline 79 \end{array}$$

Statement: There are 79 basketballs and footballs altogether.

Try to draw your own bar model to solve these next two questions:

- 3) A red shirt costs £17 and a blue shirt costs £29. How much do the two shirts cost altogether?

Bar model:



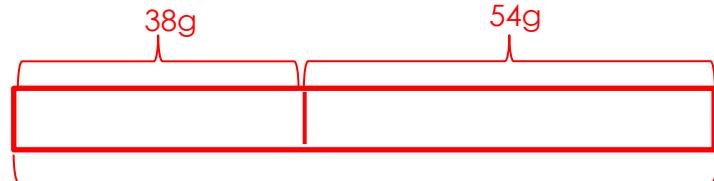
Equation: $17 + 29 = 46$

Statement: The shirts cost £46 altogether.

$$\begin{array}{r} 17 \\ + 29 \\ \hline 46 \end{array}$$

- 4) The bowl weighs 38g and the grapes weigh 54g. If the grapes are in the bowl, how much do the bowl and grapes weigh altogether?

Bar model:



Equation: $38 + 54 = 92$

$$\begin{array}{r} 38 \\ + 54 \\ \hline 92 \end{array}$$

Statement: The bowl and the grapes weigh 92g altogether.

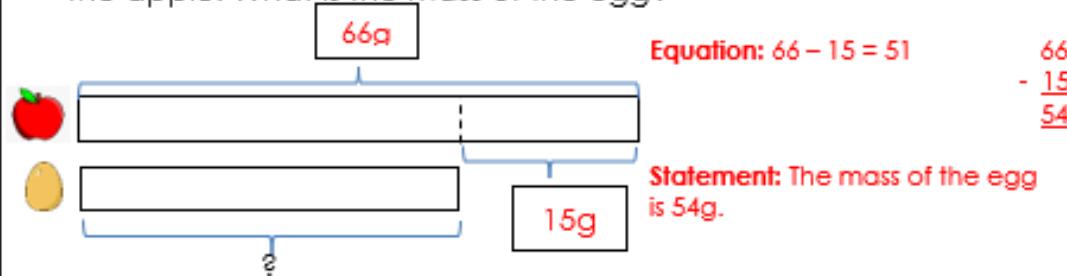
Deepening: Your adult will solve your problem and you can mark their work! Share this with your teacher.



Day 2:

DO: Solve these word problems using bar models to help you. Make sure you do bar model, equation, statement for each word problem.

1. The mass of an apple is 66g. The mass of an egg is 15g **less** than the apple. What is the mass of the egg?



2. An office building is 45m tall. An apartment building next door to the office building is 13m **shorter** than the office building. How tall is the apartment building?

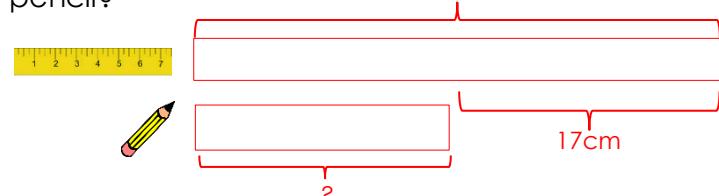


Statement: The apartment building is 32m tall.

Try to draw your own bar model to solve these next two questions:

3. A ruler is 35cm long. A pencil is 17cm shorter than the ruler. How long is the pencil?

Bar model:



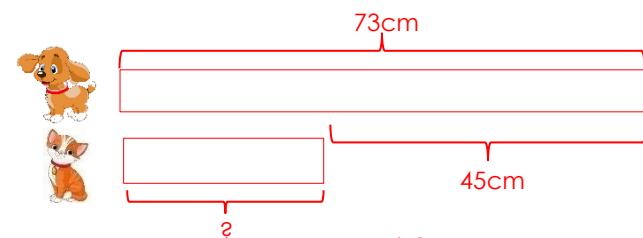
Equation: $35 - 17 = 18$

Statement: The pencil is 18cm long.

$$\begin{array}{r} 35 \\ - 17 \\ \hline 18 \end{array}$$

1. A dog is 73cm tall. A cat is 45cm shorter than the dog. How tall is the cat?

Bar model:



Equation: $73 - 45 = 28$

$$\begin{array}{r} 73 \\ - 45 \\ \hline 28 \end{array}$$

Statement: The cat is 28cm tall.

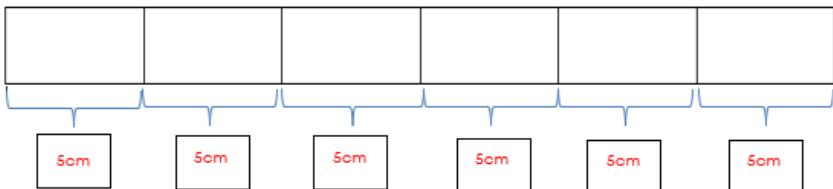
Deepening: Mr Hughes has 46 balls left. Share the method you used to solve this problem with your teacher!



Day 3:

DO: Solve these word problems using bar models to help you. Make sure you do bar model, equation, statement for each word problem.

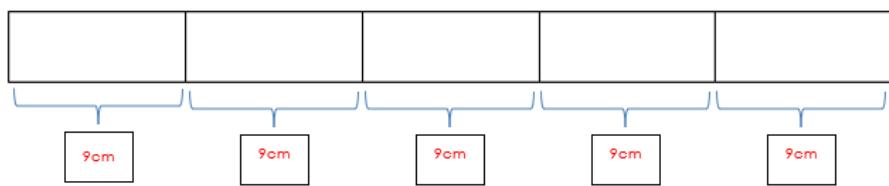
- Katie puts 6 toothpicks in one line. Each toothpick is 5cm long. What is the length of the line of toothpicks?



Equation: $6 \times 5 = 30$

Statement: The length of the line of toothpicks is 30cm.

- 5 identical pens are arranged in one line. Each pencil is 9cm long. What is the length of the line of pencils?



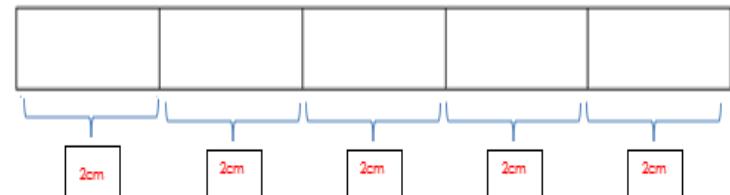
Equation: $9 \times 5 = 45$

Statement: The length of the line of pencils is 45cm.

Try to draw your own bar models to solve these next two questions.

- A wooden plank is cut into 5 pieces of equal length. Each piece is 2cm. How long was the wooden plank before it was cut?

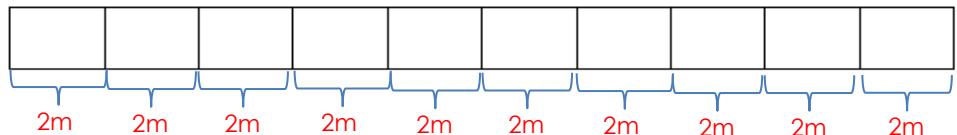
Bar model:



Equation: $5 \times 2 = 10$

Statement: The wooden plank was 10cm before it was cut.

- 10 identical tables are joined together to form one long table. Each table is 2m long. What is the length of the long table?



Equation: $10 \times 2 = 20$

Statement: The length of the long table is 20m.

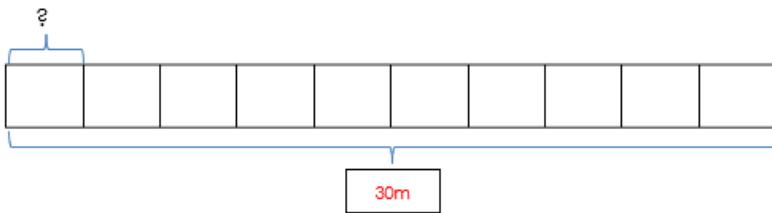
Deepening: Fred has 10 sweets left. Share the method you used to solve this problem with your teacher!



Day 4:

DO: Solve these word problems using bar models to help you. Make sure you do *bar model*, *equation*, *statement* for each word problem.

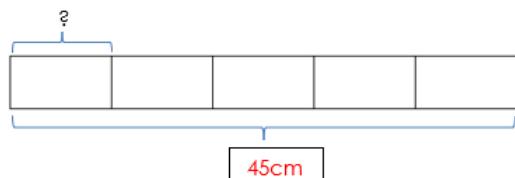
1. A rope is 30m long. It is cut into 10 pieces of equal length. What is the length of each piece?



Equation: $30 \div 10 = 3$

Statement: The length of each piece is 3m.

2. Joe uses 45cm of tape to wrap 5 identical presents. What is the length of tape he uses to wrap 1 present?



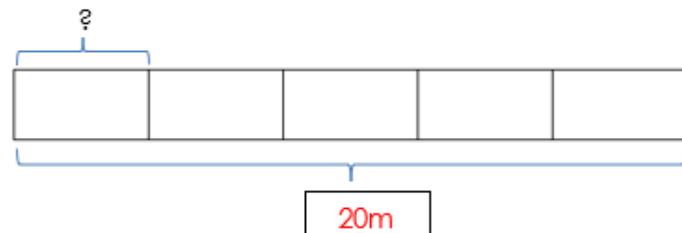
Equation: $45 \div 5 = 9$

Statement: The length of tape he uses to wrap 1 present is 9cm.

Try to draw your own bar models to solve these next two questions.

3. A 20m wire is cut into 5 parts of the same length. How long is each part of wire?

Bar model:

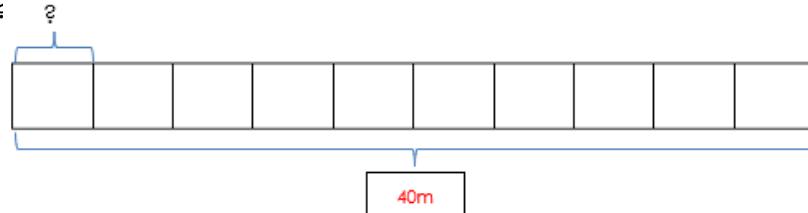


Equation: $20 \div 5 = 4$

Statement: Each part of wire is 4cm long.

4. 10 identical chairs are put into a line. The line is 40m long. How long is each chair?

Bar model:



Equation: $40 \div 10 = 4$

Statement: Each chair is 4m long.

Deepening: The answers will vary. Share your word problem with your teacher.

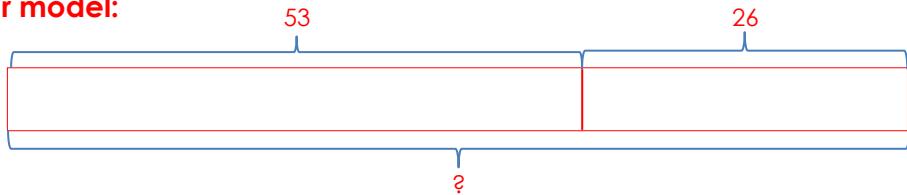


Day 5:

DO:

1. George had 53 stickers. He bought 26 more stickers. How many stickers does he have altogether?

Bar model:



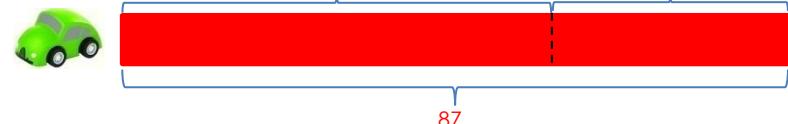
Equation: $53 + 26 = 79$

$$\begin{array}{r} 53 \\ + 26 \\ \hline 79 \end{array}$$

Statement: George has 79 stickers altogether.

2. Charlie has 87 toy cars. He gives his friend Greg 42 of his toy cars. How many does Charlie have left?

Bar model:



Equation: $87 - 42$

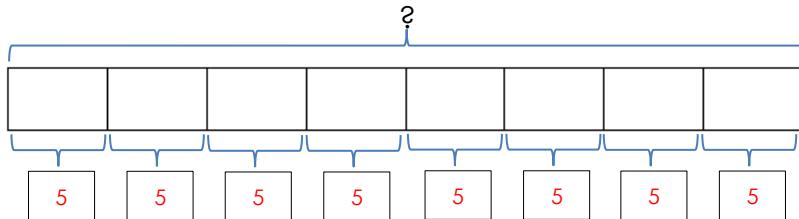
$$\begin{array}{r} 87 \\ - 42 \\ \hline 45 \end{array}$$

Statement: Charlie has 45 toy cars left.

DO:

3. Ethan has 8 bags of sweets. Each bag has 5 sweets in it. How many sweets does Ethan have altogether?

Bar model:

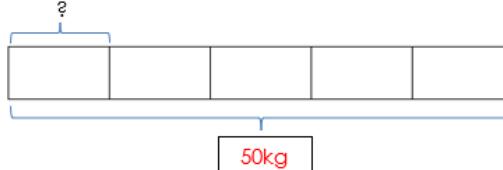


Equation: $8 \times 5 = 40$

Statement: Ethan has 40 sweets altogether.

3. The total mass of 5 equal bags of flour is 50kg. Each bag of flour has the same mass. What is the mass of each bag of flour?

Bar model:



Equation: $50 \div 5 = 10$

Statement: The mass of each bag of flour is 10kg.

Deepening: The answers will vary. Share your word problem with your teacher.

Example: A piece of string was 14cm. The dressmaker cut the string into 7 equal pieces. How long was each piece of string?

