

# MathShed

Festive Problems

16<sup>th</sup> December



## Challenge 1:

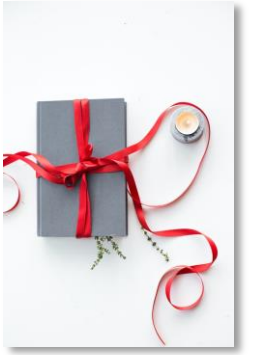
Festive Problems | 16<sup>th</sup> December

Mrs Kringle has some ribbon.

She cuts off five equal pieces of ribbon, 9m long each.

There is 6m of ribbon leftover.

How long was the piece of ribbon originally?



Bar Modelling:

Number Sentences:

## Challenge 1:

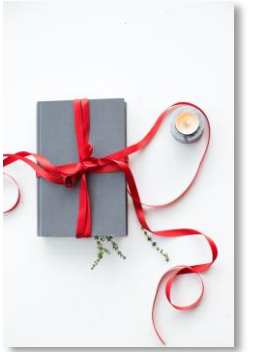
Festive Problems | 16<sup>th</sup> December

Mrs Kringle has some ribbon.

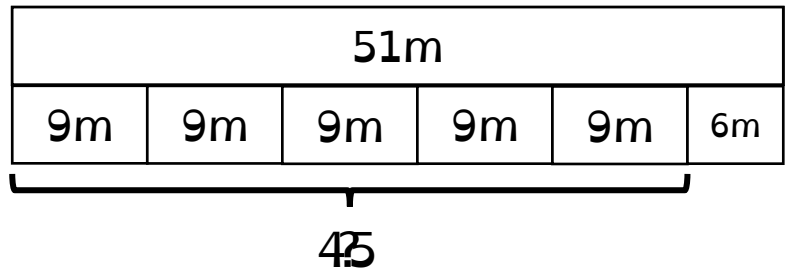
She cuts off five equal pieces of ribbon, 9m long each.

There is 6m of ribbon leftover.

How long was the piece of ribbon originally?



### Bar Modelling:



### Number Sentences:

$$5 \times 9 = 45$$

$$45 + 6 = 51\text{m}$$

Mrs Kringle's ribbon was 51 m long originally.

## Challenge 2:

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Santa is thinking about two numbers.

Santa says, "The sum of the two numbers is 87.  
The smaller number is 26."

What is the difference between Santa's two numbers?



Bar Modelling:

Number Sentences:

## Challenge 2:

Festive Problems | 16<sup>th</sup> December

Santa is thinking about two numbers.

Santa says, "The sum of the two numbers is 87.  
The smaller number is 26."

What is the difference between Santa's two numbers?



### Bar Modelling:

87	
26	61

61	
26	35

### Number Sentences:

$$87 - 26 = 61$$

$$61 - 26 = 35$$

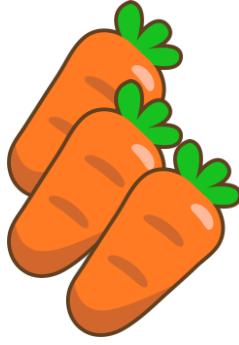
The difference between Santa's two numbers is 35.

### Challenge 3:

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Santa's reindeer collect the same amount of carrots in the first 12 countries they visit. They had collected 480kg of carrots after visiting just three of the countries.

How many kg of carrots did they collect from the 12 countries?



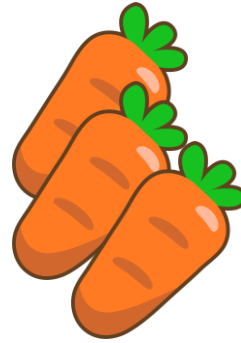
Bar Modelling:

Number Sentences:

### Challenge 3:

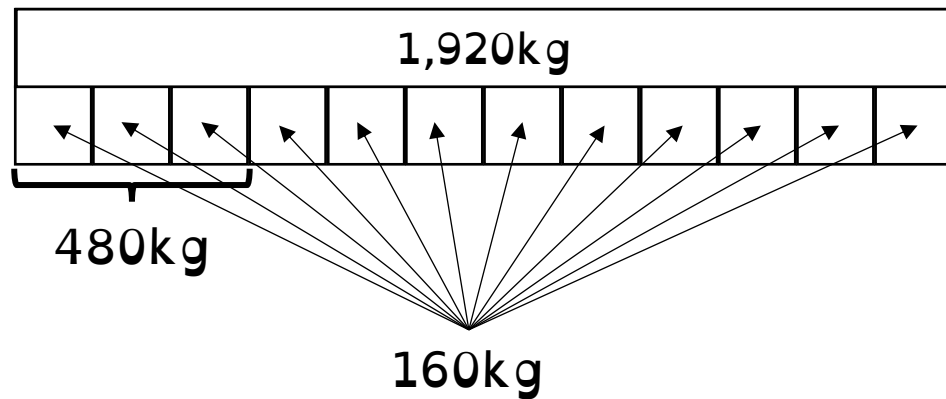
### Festive Problems | 16<sup>th</sup> December

Santa's reindeer collect the same amount of carrots in the first 12 countries they visit. They had collected 480kg of carrots after visiting just three of the countries.



How many kg of carrots did they collect from the 12 countries?

#### Bar Modelling:



#### Number Sentences:

$$480 \div 3 = 160$$

$$12 \times 160 = 1,920$$

The reindeers collected 1,920 kg of carrots.

## Challenge 4:

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Rudolph and Comet are thinking of different numbers. Two thirds of Rudolph's number is equal to two fifths of Comet's number. The difference between their two numbers is 84.

What is the sum of their numbers?



Bar Modelling:

Number Sentences:



## Challenge 4:

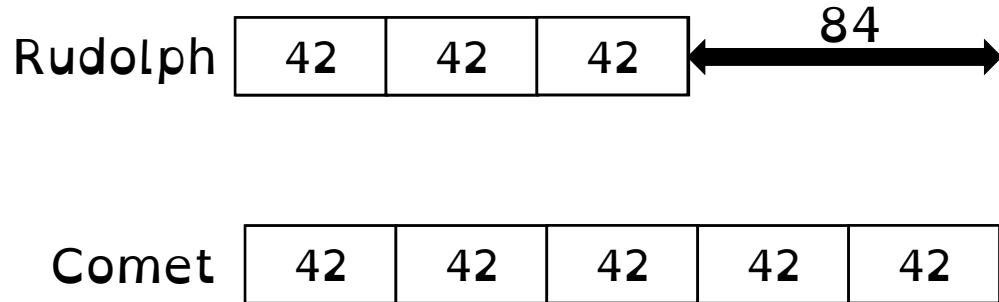
Festive Problems | 16<sup>th</sup> December

Rudolph and Comet are thinking of different numbers. Two thirds of Rudolph's number is equal to two fifths of Comet's number. The difference between their two numbers is 84.

What is the sum of their numbers?



### Bar Modelling:



### Number Sentences:

$$84 \div 2 = 42$$

$$8 \times 42 = 336$$

The sum of the two reindeers' numbers is 336.