LO: To be able to solve correspondence problems.

## WARM UP!

## Maths Brain Teaser - 2

How many triangles are there in the figure below?
(Clue: the answer is not 16)


## Maths Brain Teaser - 2

How many triangles are there in the figure below? (Clue: the answer is not 16)


## Answer:

27. 

What did you get?

## Quick recap of yesterday, we looked at scaling and how to draw bar models to help us represent answers.

## Look at the problem below,

 Miss Strachan has a 5 kg bag of sweets. Miss Dunlavy has a bag that is 12 times heavier than Miss Strachan's. ©Can you draw a bar model to represent this problem? Can you work out how heavy Miss Dunlavy's bag of sweets is? Write a multiplication to work it out.

Quick recap of yesterday, we looked at scaling and how to draw bar models to help us represent answers.

Look at the problem below,
 times heavier than Miss Strachan's. :

Can you draw a bar model to represent this problem? Can you work out how heavy Miss Dunlavy's bag of sweets is? Write a multiplication to work it out.
Miss Strachan 5

Miss Dunlavy | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$5 \times 12=60 \mathrm{~kg}$

## Well done! Now on to today's learning...

We are going to look at answering problems that have a number of different answers. Y4's you should remember doing this in Y3! Look at the example below.


What combinations of shape and colour could she draw?

## Well done! Now on to today's learning...

We are going to look at answering problems that have a number of different answers. Y4's you should remember doing this in Y3! Look at the example below.

Maya is going to draw a coloured shape. She can choose from 2 different shapes and 3 different colouring pencils.


There is more than one answer.





| Shape | Colour |
| :---: | :---: |
| square | blue |
| square | green |
| square | yellow |
| circle | blue |
| circle | green |
| circle | yellow |

It is important to use a system, to make sure you have found all of the possible combinations.


In this example, you could start with square. Then match all the colours with square.
Then move onto circle, then match all the colours with circle.
Need to make sure you have them all? Times the number of shapes, by the number of colours. $3 \times 2=6$. Then you know you need 6 combinations.

## Lets try another one,

Here are the different flavours and toppings at the ice cream parlour.


Vanilla Strawberry
Flavours



Flake


Fruit

What times table can we do to work out how many combinations there are in total?

## Lets try another one,



What times table can we do to work out how many combinations there are in total?
$2 \times 4=8$
Were you right?

## Lets try another one,

Here are the different flavours and toppings at the ice cream parlour.


Vanilla Strawberry
Flavours



Fruit

Toppings
We are looking for 8 combinations.
Start with vanilla and use codes.
E.G V - Ch.

V-Sp
V-Fl
V - Fr
Can you find the rest of the combinations?

## Lets try another one,

Here are the different flavours and toppings at the ice cream parlour.


Vanilla Strawberry
Flavours



Flake
 Toppings

We are looking for 8 combinations.
Start with vanilla and use codes.
E.G V-Ch.

V-Sp
V-Fl
V-Fr
S - Ch
S - Sp
S - Fl
$\mathrm{S}-\mathrm{Fr}$

Were you correct?

## Now it's your turn. Use a code to show the combinations.

Harry needs to choose one hat and one scarf to put on his snowman.


How many different combinations of hats and scarves could he choose?
$\ldots \quad$ _____ There are ___ different combinations.

## Now it's your turn. Use a code to show the combinations.

Harry needs to choose one hat and one scarf to put on his snowman.


How many different combinations of hats and scarves could he choose?

$4 \times 2=8$
Do you have 8 combinations?

Year 3 children you can now start your worksheet. Year 4 children can you try a challenge? This will relate a little more to your worksheet.

Pippa is making a pizza. She needs to choose the size, the type of cheese and the topping.

| Pizza Size | Type of Cheese | Toppings |
| :---: | :---: | :---: |
|  | Dairy Vegan |  |

Can you write down a multiplication to represent the number of combinations?

Pippa is making a pizza. She needs to choose the size, the type of cheese and the topping.

| Pizza Size | Type of Cheese | Toppings |
| :---: | :---: | :---: |
|  | Dairy Vegan |  |

Can you write down a multiplication to represent the number of combinations?

$$
2 \times 2 \times 4=16
$$

Well done! Now start your worksheet!

