

Year 2: Doubles

Maths: 05.02.21

LET'S LEARN

In our lesson today we will learn all about doubles. Knowing your doubles to 20 is an important key to help you with your addition and subtraction as well as multiplication and division.



Revision

$$56 + 26 =$$

$$82 - 39 =$$

$$45 + 13 =$$

$$65 - 28 =$$

Sally has 65 hair bobbles. She leaves 47 of them in a box and puts the rest in her school bag. How many are in her school bag?



Can you deepen the moment and answer this challenge question?

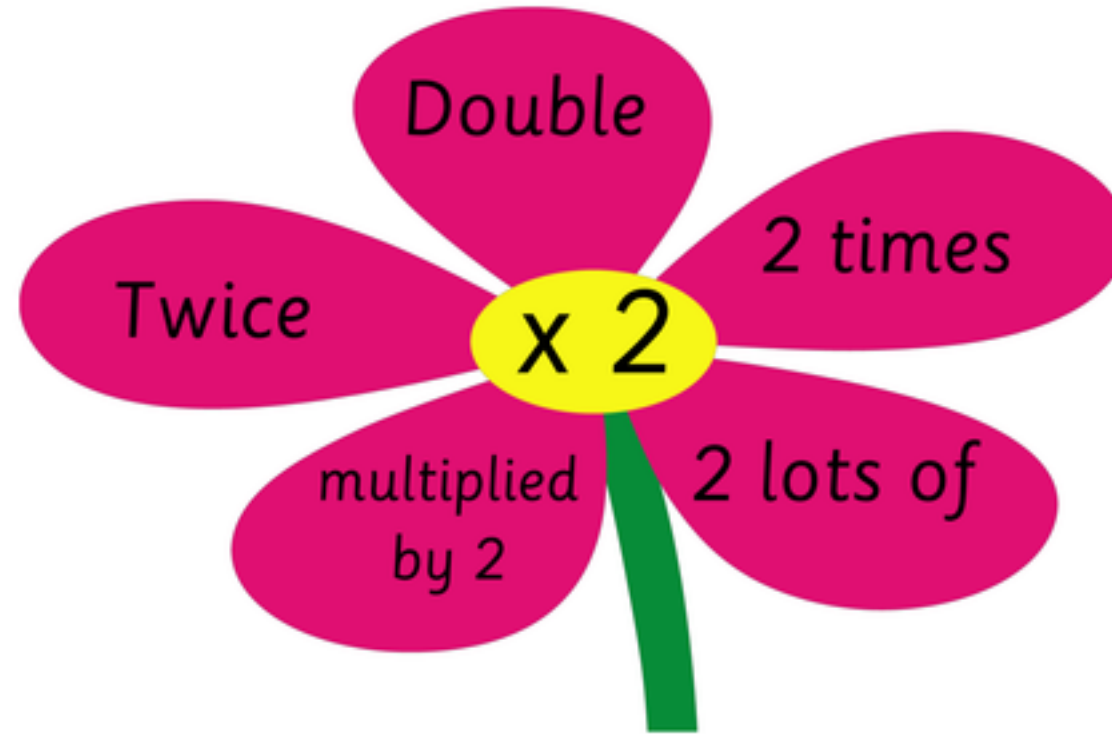
Darcey subtracts 6 from 55.

"55, 54, 53, 52, 51, 50."



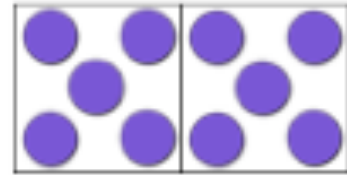
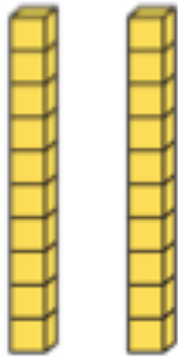
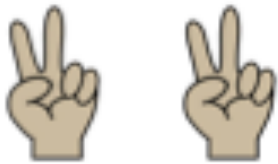
Is Darcey correct?
Explain your reasoning!

Vocabulary



Anchor Task

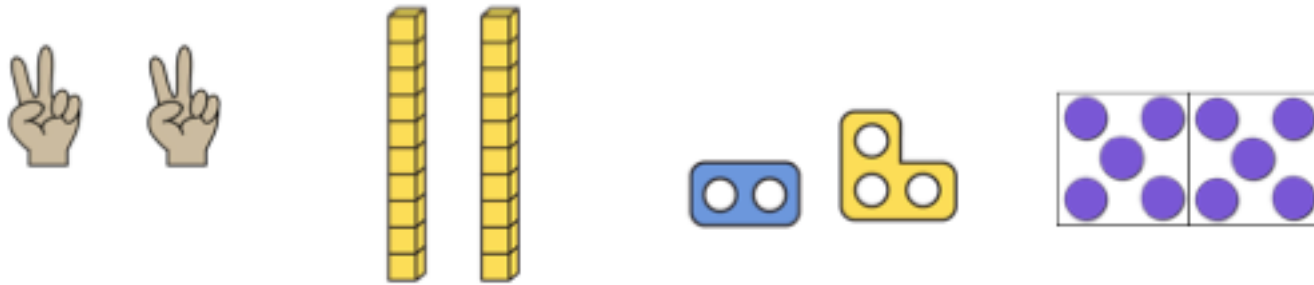
Which representation doesn't belong?



Explain your answer.

Anchor Task

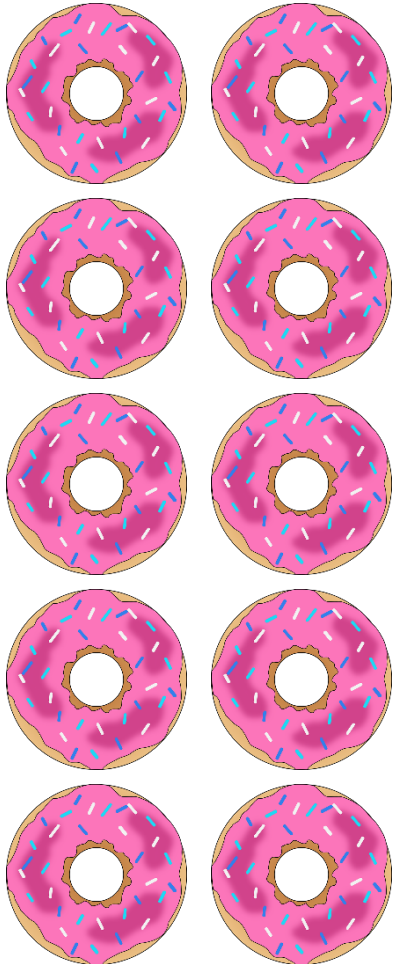
Which representation doesn't belong?



Explain your answer.

The Numicon shapes representation doesn't belong as it doesn't show pairs of representations that are the same.

Recap



How many doughnuts?

There are ____ doughnuts in a row.

There are ____ rows.

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} =$$

$$\underline{\quad} \times \underline{\quad} =$$

Review

How many doughnuts?



There are 2 doughnuts in a row.

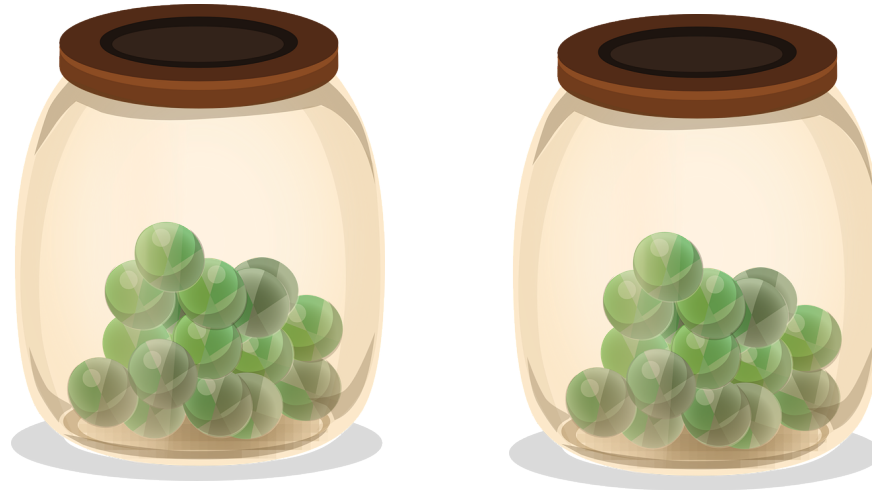
There are 5 rows.

$$\underline{\quad} 2 + \underline{\quad} 2 + \underline{\quad} 2 + \underline{\quad} 2 + \underline{\quad} 2 = 10$$

$$\underline{\quad} 5 \times \underline{\quad} 2 = \underline{\quad} 10$$

Explore

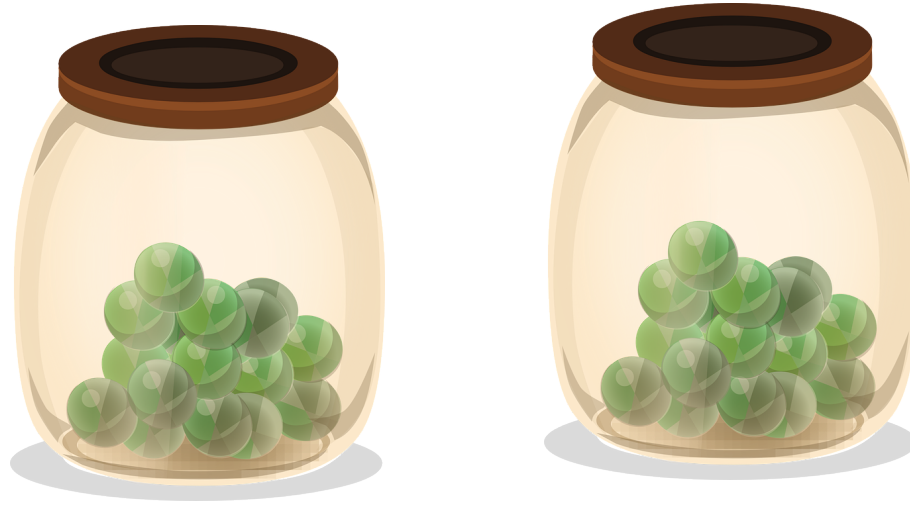
If there are 5 marbles in each jar,
how many marbles are there altogether?



$$5 + 5 =$$

Explore

If there are 5 marbles in each jar,
how many marbles are there altogether



$$5 + 5 = 10$$

What do we call it when we add two equal
groups?

Explore

We call this doubling.
To find a double of a number, we
add the same number to itself.
For example, double of 2 is $2 + 2 = 4$.

Let's find out more...



Explore

Double the dots.



There are ____ groups of ____.

$$\underline{\quad} + \underline{\quad} =$$

Double ____ is ____.

$$\underline{\quad} \times \underline{\quad} =$$

What happens if I double the dots? Let's use the sentence stems to help us.

Explore

Double the dots.



There are 2 groups of 1.

$$1 + 1 = 2$$

Double 1 is 2.

$$2 \times 1 = 2$$

Explore

Double the socks.



There are ____ groups of ____.

$$\underline{\quad} + \underline{\quad} =$$

Double ____ is ____.

$$\underline{\quad} \times \underline{\quad} =$$

What happens if I double the dots? Let's use the sentence stems to help us.

Explore

Double the socks.



There are 2 groups of 2.

$$2 + 2 = 4$$

Double 2 is 4.

$$2 \times 2 = 4$$

Explore

Double the dots.



There are ____ groups of ____.

$$__ + __ =$$

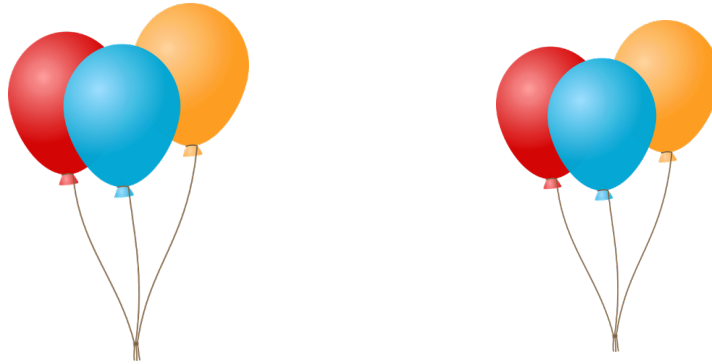
Double _____ is _____.

$$__ \times __ =$$

What happens if I double the dots? Let's use the sentence stems to help us.

Explore

Double the balloons.



There are 2 groups of 2.


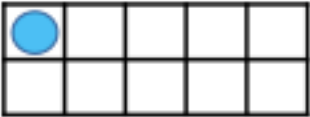
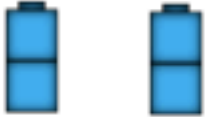

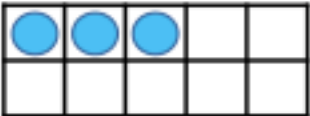
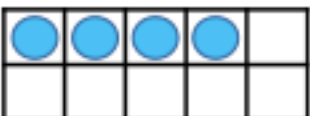
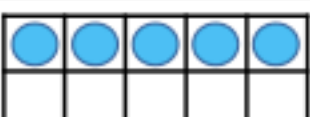
$$2 + 2 = 4$$

Double 2 is 4.


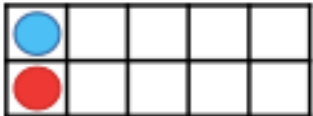



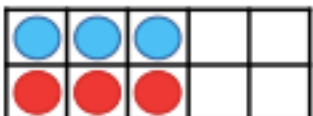



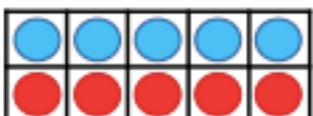
$$2 \times 2 = 4$$

Your Turn

Complete the table.

| Build | Represent | Add | Double |
|---|--|-----------|------------------|
|  |  | $1 + 1 =$ | Double 1 is ____ |
|  |  | $2 + 2 =$ | Double 2 is ____ |
| |  | $3 + 3 =$ | Double 3 is ____ |
| |  | $4 + 4 =$ | Double 4 is ____ |
| |  | $5 + 5 =$ | Double 5 is ____ |

Review

| Build | Represent | Add | Double |
|---|--|--------------|----------------|
|  |  | $1 + 1 = 2$ | Double 1 is 2 |
|  |  | $2 + 2 = 4$ | Double 2 is 4 |
|  |  | $3 + 3 = 6$ | Double 3 is 6 |
|  |  | $4 + 4 = 8$ | Double 4 is 8 |
|  |  | $5 + 5 = 10$ | Double 5 is 10 |

Guided Practice

$$1 + 1 = 2$$

$$2 + 2 = 4$$

$$3 + 3 =$$

$$4 + 4 =$$

$$5 + 5 =$$

$$6 + 6 =$$

$$7 + 7 =$$

$$8 + 8 =$$

$$9 + 9 =$$

$$10 + 10 =$$

Complete the calculations and discuss what you notice with your grown up. All the totals to these calculations have something in common. Can you spot it?



Guided Practice

$$1 + 1 = 2$$

$$2 + 2 = 4$$

$$3 + 3 = 6$$

$$4 + 4 = 8$$

$$5 + 5 = 10$$

$$6 + 6 = 12$$

$$7 + 7 = 14$$

$$8 + 8 = 16$$

$$9 + 9 = 18$$

$$10 + 10 = 20$$

All the totals are
the numbers we
say when we count
in twos.
They are all even
numbers.



Explore

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

$$2 \times 6 = 12$$

$$2 \times 7 = 14$$

$$2 \times 8 = 16$$

$$2 \times 9 = 18$$

$$2 \times 10 = 20$$



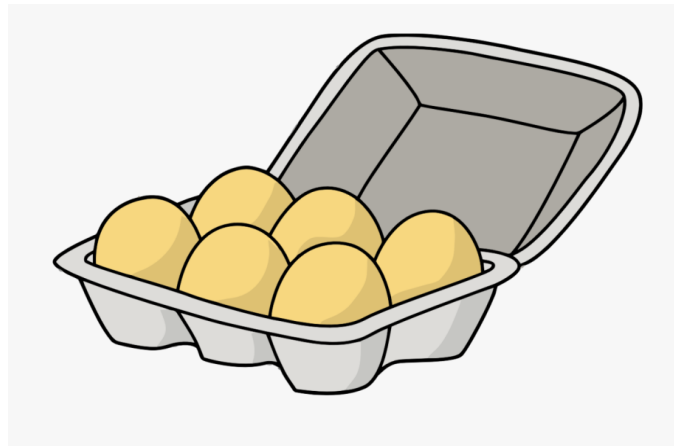
As we are adding 2 numbers that are the same, we could also rewrite these as multiplications. There are 2 lots of each number so that can be written as $2 \times \underline{\quad}$

Reasoning

True or False?



If I double my eggs,
I will have 10.



Reasoning

True or False?

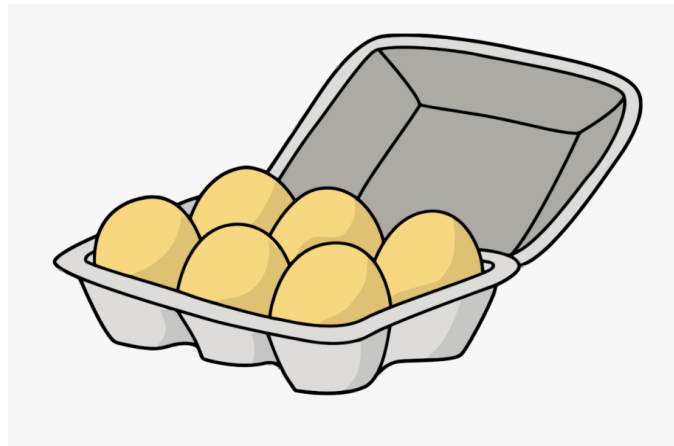


If I double my eggs,
I will have 10.

False.

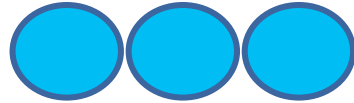
Double 6 is 12.

Double 5 is 10.

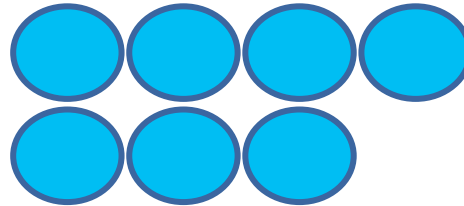


Reasoning

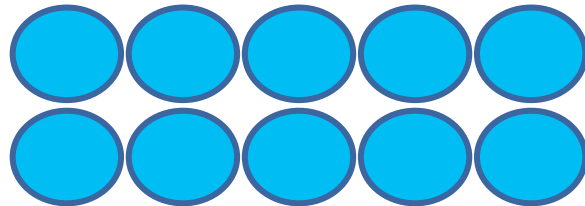
Which is the odd one out? Explain why.



Double 3 is 6.

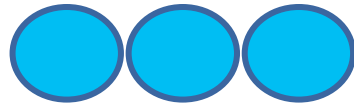


Double 7 is 15.

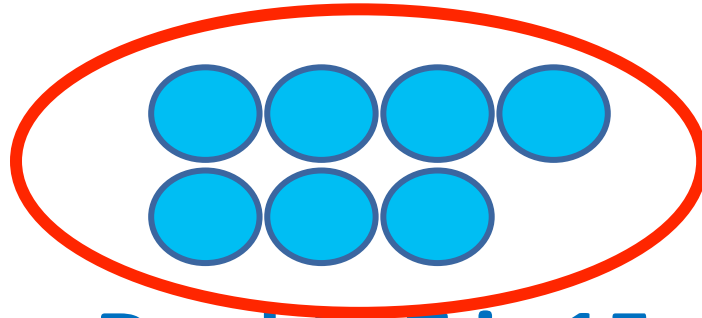


Explore

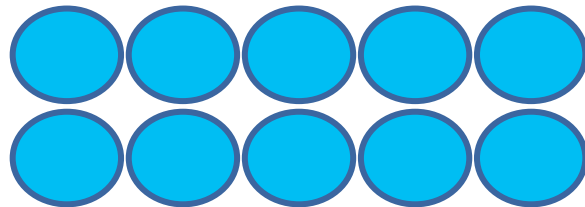
Which is the odd one out?



Double 3 is 6.



Double 7 is 15.



Double 7 is 14.
All doubles are
even numbers.

Your Task

Your task today is to learn your doubles by heart. You must be able to recall them in any order so ask your grown up or brothers or sisters to test you. Have a look at the activities on the next page for ideas of how to practise your doubles. I've also added a game you could use to help you.

If your finding it tricky to remember your doubles, use this video to help you.

<https://www.youtube.com/watch?v=e-KTHfrFit0>

Activity

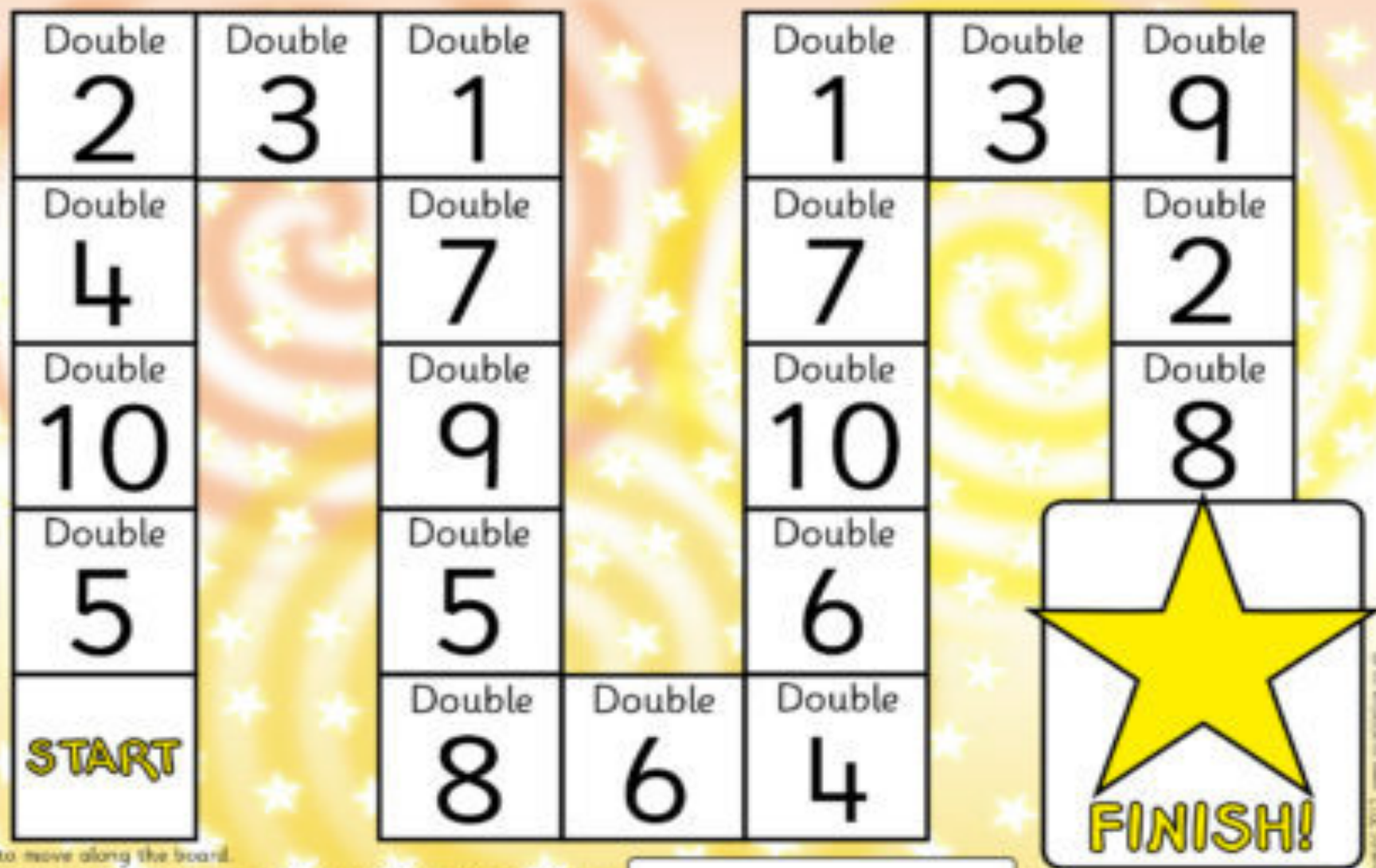


Sit face-to-face with a partner.

The questioner must **fire questions** at the answerer by asking them to double different numbers... e.g. 'What is double **7**?' If the answerer doesn't know the answer (or they say the wrong answer), the questioner must tell them the answer.

Swap seats (the questioner becomes the answerer) after **2 minutes**.

Doubles Game



Roll a die to move along the board.

Say the double of the number you land on. If you don't know it, move back

Adding Doubles

Name _____ Date _____

$$2 + 2 = \square \quad 1 + 1 = \square \quad 5 + 5 = \square \quad 4 + 4 = \square$$

$$3 + 3 = \square \quad 0 + 0 = \square \quad 4 + 4 = \square \quad 2 + 2 = \square$$

$$1 + 1 = \square \quad 5 + 5 = \square \quad 0 + 0 = \square \quad 3 + 3 = \square$$

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ + 7 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ + 3 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ + 10 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 1 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ + 4 \\ \hline \end{array}$ |
| \square | \square | \square | \square | \square | \square | \square | \square |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $\begin{array}{r} 0 \\ + 0 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ + 2 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ + 3 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ + 7 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$ |
| \square | \square | \square | \square | \square | \square | \square | \square |

Color by Number


Directions: Color the picture by matching the sums of the doubles facts to the colors below.


 pink = 0, 12

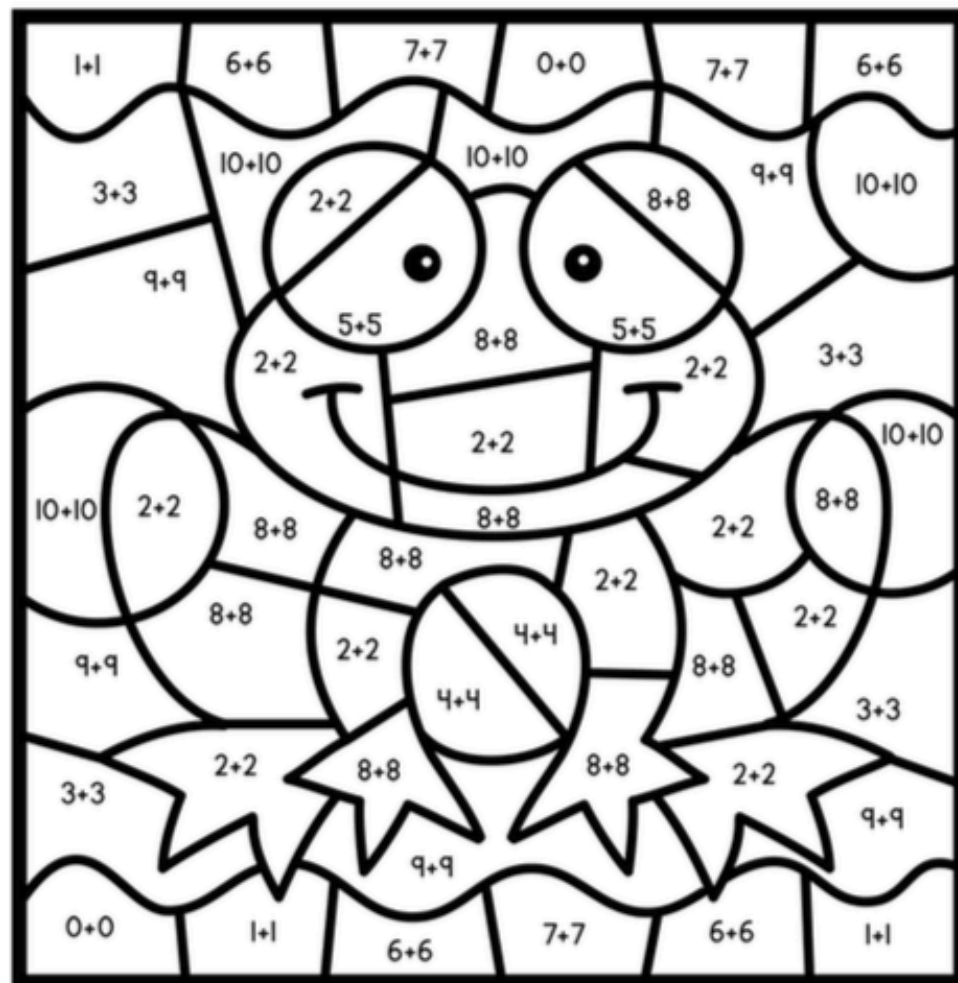
 purple = 2, 14

 green = 4, 16

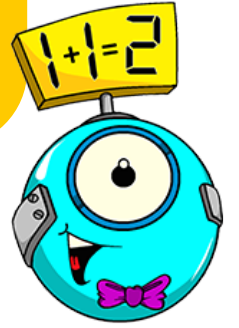
 blue = 6, 18, 20

 yellow = 8

 white = 10



More of a challenge



How would you double a 2 digit number?

To double a larger number, you need to partition it into tens and ones first.

Example: double 24
 $24 = 20 + 4$

Once you have partitioned the number, double the tens and the ones separately and then recombine.

Double 4 = 8
Double 20 = 40
 $40 + 8 = 48$

More of a challenge

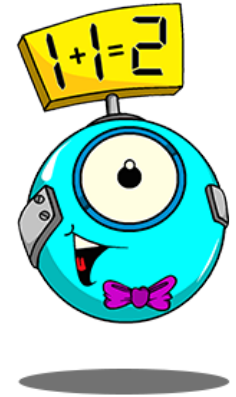
Example: double 15

$$15 = 10 + 5$$

$$\text{Double } 5 = 10$$

$$\text{Double } 10 = 20$$

$$20 + 10 = 30$$



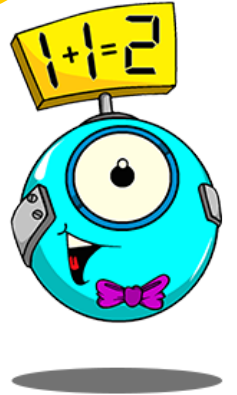
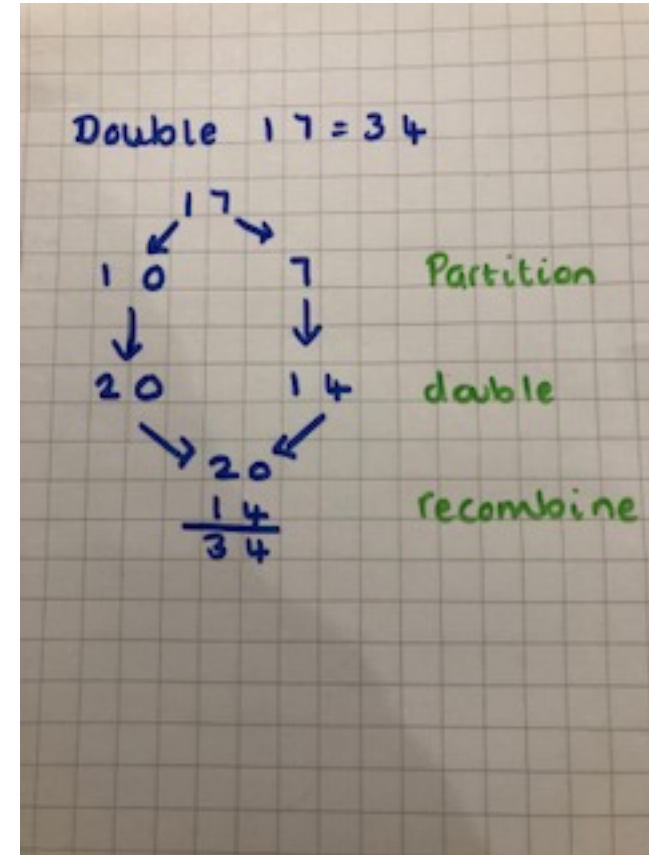
Watch this video to see this method in action and then complete the calculations on the next page:

<https://www.youtube.com/watch?v=Ac8jduvpr0Q>

More of a challenge

Double 23
Double 41
Double 25
Double 19
Double 34
Double 28
Double 45
Double 32
Double 46
Double 16

Double 43
Double 22
Double 36
Double 13
Double 44



ALL THE ANSWERS



Revision

$$56 + 26 = 82$$

$$82 - 39 = 43$$

$$45 + 13 = 58$$

$$65 - 28 = 37$$

Sally has 65 hair bobbles. She leaves 47 of them in a box and puts the rest in her school bag. How many are in her school bag?

$$65 - 47 = 18$$

Darcey subtracts 6 from 55.

"55, 54, 53, 52, 51, 50."



Is Darcey correct?
Explain your reasoning!

She is not correct. When she counted back she included 55. She should have placed 55 in her head and then started to count. $55 - 6 = 49$

More of a challenge

Double 23 = 46

Double 41 = 82

Double 25 = 50

Double 19 = 38

Double 34 = 64

Double 28 = 56

Double 45 = 90

Double 32 = 64

Double 46 = 92

Double 16 = 32

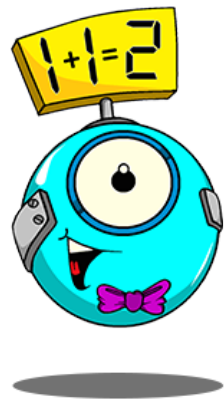
Double 43 = 86

Double 22 = 44

Double 36 = 72

Double 13 = 26

Double 44 = 88



What do you notice about all the answers?