RECALL - ODDS

Odds numbers are NOT in the 2 times table.

Colour in the odd numbers.

1	3	5
6	2	7
9	8	4

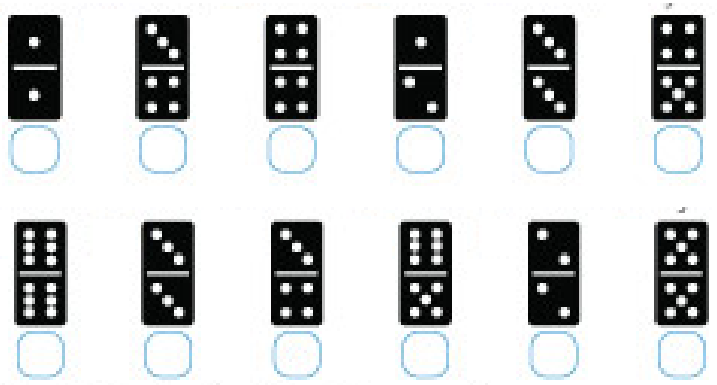
Circle the Numicon pieces that are odd.

Write the next odd number.

3 → ▢ 15 → ▢ 5 → ▢

9 → ▢ 7 → ▢ 11 → ▢

Count the total of dots on each domino. Put a cross beneath each domino with an odd total.

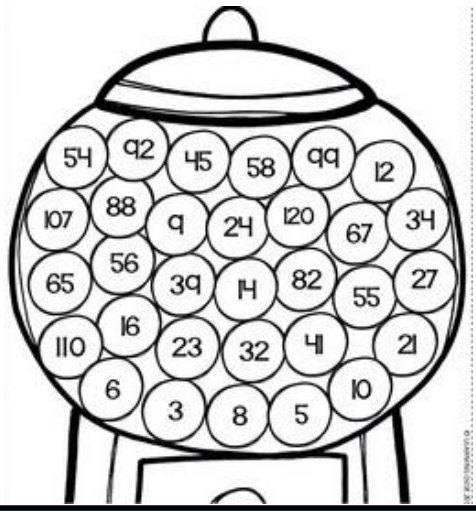


Colour in the odd numbers.

Odd numbers always end in

___, ___, ___, ___,

or ____.



Is there a times table where all the multiples are odd?

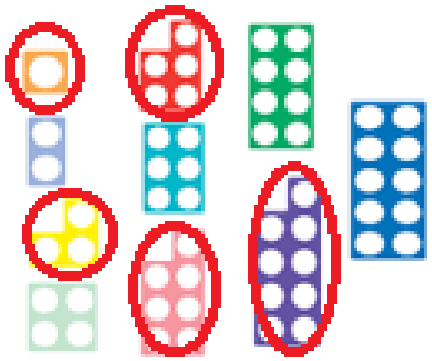
RECALL - ODDS

Odds numbers are NOT in the 2 times table.

Colour in the odd numbers.

1	3	5
6	2	7
9	8	4

Circle the Numicon pieces that are odd.

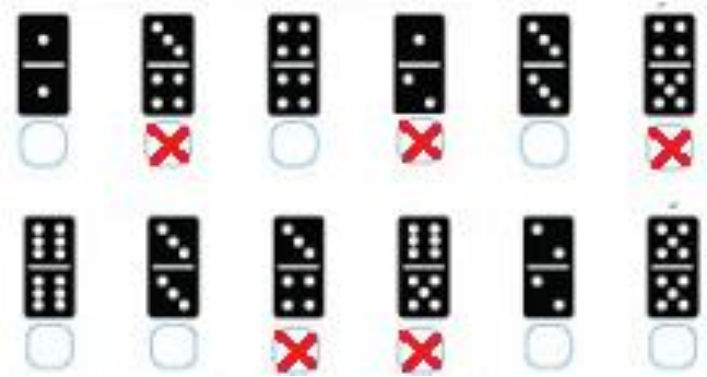


Write the next odd number.

3 → 5 15 → 17 5 → 7

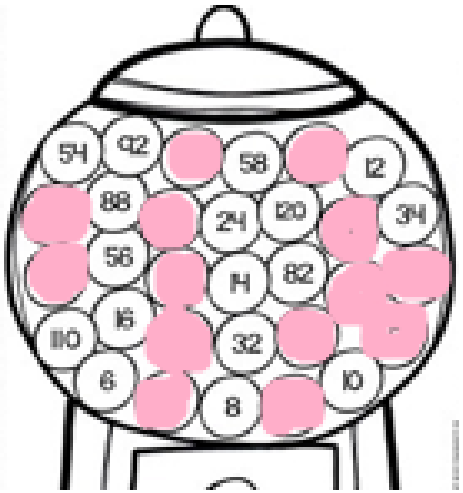
9 → 11 7 → 9 11 → 13

Count the total of dots on each domino. Put a cross beneath each domino with an odd total.



Colour in the odd numbers.

Odd numbers always end in 1, 3, 5, 7, or 9.



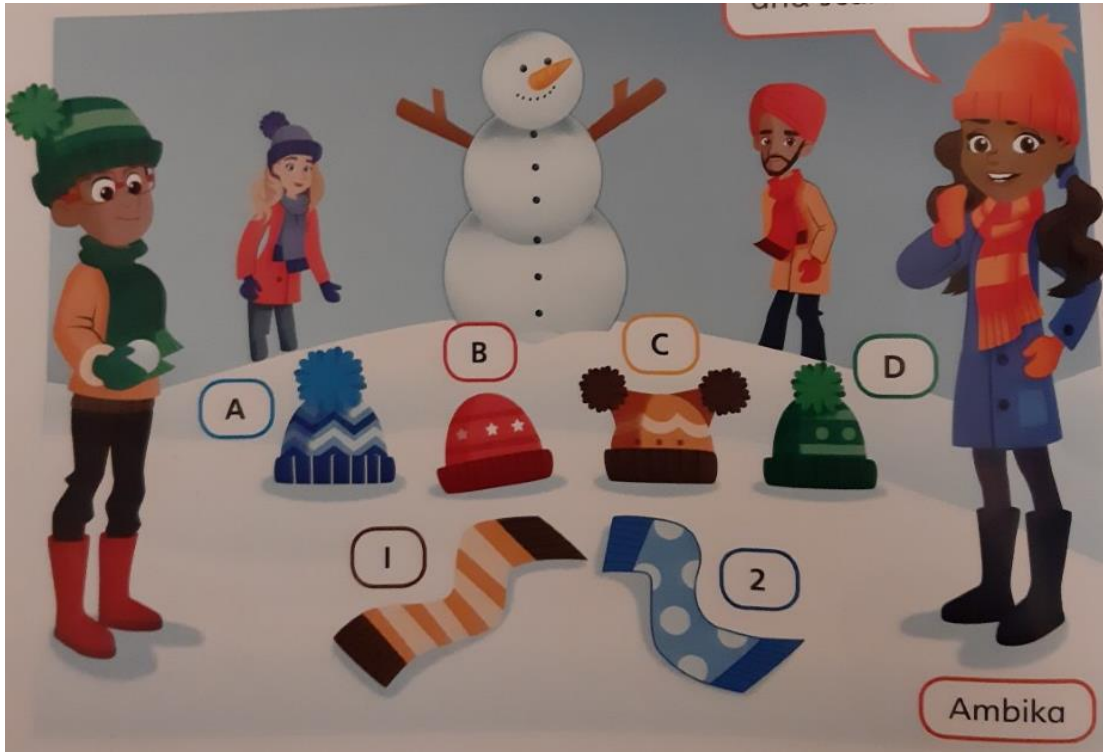
Is there a times table where all the multiples are odd? **False**

LO: I CAN SOLVE PROBLEMS SYSTEMATICALLY.

Page

MODELLED EXAMPLE

Ambika made a snowman. She has 4 hats and 2 scarves to choose from.



How many different way can she dress the snowman? Record the ways in a list.

Is there a link between the number of hats and scarves and the number of ways to dress the snowman?

Working it out

- **Randomly**

You *could* draw the snowman wearing different hats and scarves.

- **Systematically**

Choose one hat and try each scarf. Then record the next hat with each scarf.

Blue hat + yellow scarf

Blue hat + blue scarf

Red hat + yellow scarf

Red hat + blue scarf

Hat	Scarf
Hat A	Scarf 1
Hat A	Scarf 2
Hat B	Scarf 1
Hat B	Scarf 2
Hat C	Scarf 1
Hat C	Scarf 2
Hat D	Scarf 1
Hat D	Scarf 2

4 hats x 2 scarves = 8 ways

INTELLIGENT PRACTICE

Lewis buys **one drink** and **one snack** during morning playtime. What could he buy?

milk

juice

bagel

apple

	Drink	Food
1	milk	bagel
2	milk	
3	juice	
4		

Lewis buys **one drink** and **one snack**. What could he buy?

milk

juice

bagel

apple

banana

	Drink	Food
1	milk	bagel
2	milk	
3	milk	
4	juice	
5		
6		

Lewis buys **one drink** and **one snack**. What could he buy?

milk

juice

water

bagel

apple

banana

	Drink	Food
1		
2		
3		
4		
5		
6		
7		
8		
9		

2 drinks and 2 snacks = 4 options.
2 drinks and 3 snacks = 6 options
3 drinks and 3 snacks = 9 options.

What do you notice?

INTELLIGENT PRACTICE

Lewis buys **one drink** and **one snack** during morning playtime. What could he buy?

milk

juice

bagel

apple

	Drink	Food
1	 milk	 bagel
2	 milk	 apple
3	 juice	
4		

Lewis buys **one drink** and **one snack**. What could he buy?

milk

juice

bagel

apple

banana

	Drink	Food
1	milk	bagel
2	milk	
3	milk	
4	juice	
5		
6		

Lewis buys **one drink** and **one snack**. What could he buy?

milk

juice

water

bagel

apple

banana

	Drink	Food
1		
2		
3		
4		
5		
6		
7		
8		
9		

2 drinks x 2 snacks = 4 options.

2 drinks x 3 snacks = 6 options

3 drinks x 3 snacks = 9 options.

What do you notice?

DIVE DEEPER

1

Bella needs some new glasses and shoes. There are 3 pairs of glasses and 3 pairs of shoes she can chose from.

Glasses

A

B

C

Shoes

1

2

3

a

Draw this table in your maths book and list all the possible combinations. One has been done for you.

	Glasses	Shoes
1	A	1

b

How many different ways are there?

3 x ☐ = ☐ ways

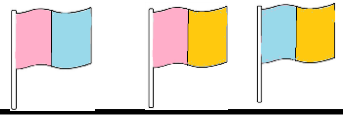
2

Choose 3 different colouring pencils.

A flag is made up of 2 different colours and is divided in half vertically.

How many different flags can you make? Draw them neatly into you book.

Here are some of my examples using **blue**, **orange** **and** **pink**.

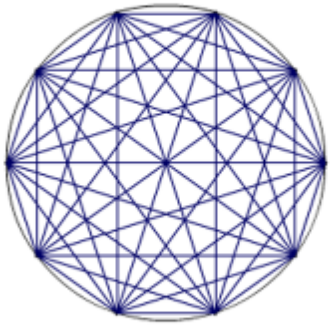


Mystic rose

This is a 10 pointed mystic rose. The 10 points are equally spaced around the circle.

How many lines are needed to draw it?

How many lines would you need for a 100 pointed mystic rose?



Thousands more problems can be found on the NRICH maths website:

http://nrich.maths.org

DIVE DEEPER

1

Bella needs some new glasses and shoes. There are 3 pairs of glasses and 3 pairs of shoes she can chose from.

a

	Glasses	Shoes
1	A	1
2	A	2
3	A	3
4	B	1
5	B	2
6	B	3
7	C	1
8	C	2
9	C	3

b

How many different ways are there?

3 x 3 = 9 ways

2

Choose 3 different colouring pencils.

A flag is made up of 2 different colours and is divided in half vertically.

How many different flags can you make? Draw them neatly into you book. 6

nrich enriching mathematics

Mystic rose

This is a 10 pointed mystic rose. The 10 points are equally spaced around the circle.

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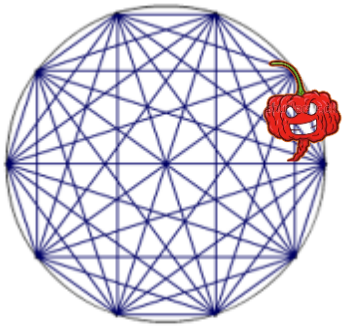
How many lines would you need for a 100 pointed mystic rose?



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10 dots x 9 options = 90