

Year 9 sets 2a and 2b w/c Monday 22nd June. Venn diagrams and set notation

Dear Year 9,

How are you? Did you manage to avoid getting soaked in the thunderstorms? I hope you are staying safe and well. Did you master the card trick? Did you understand the classic Monty Hall problem?

I am really pleased with how hard you have all been working; it will really pay off when we return! We continue with the GCSE scheme of work; this week you have one Mymaths lesson and homework, one Mathswatch assignment and linked videos and one magic trick to explore. All work is due for Sunday 28th June please. Please make sure that you try your best on every task, keep up to date and remember that I am always here and happy to help!

Firstly, please mark your answers to these two questions from last week:

WhiteRoseMaths

Two spinners are numbered 1 to 3. They are both spun and then the difference of the two numbers is found. The sample space is shown to the right.

+	1	2	3
1	0	1	2
2	1	0	1
3	2	1	0

What is the probability of the result being 3?

A
 $\frac{2}{15}$

B
 0

C
 $\frac{1}{3}$

D
Impossible to tell as 3 is not an outcome

WhiteRoseMaths

Two spinners are numbered 1 to 4. They are both spun and then the product of the two numbers is found. The sample space is shown to the right.

×	1	2	3	4
1	1	2	3	4
2	2	4	6	8
3	3	6	9	12
4	4	8	12	16

What is the probability of the result being 6?

A
2

B
 $\frac{1}{8}$

C
 $\frac{1}{16}$

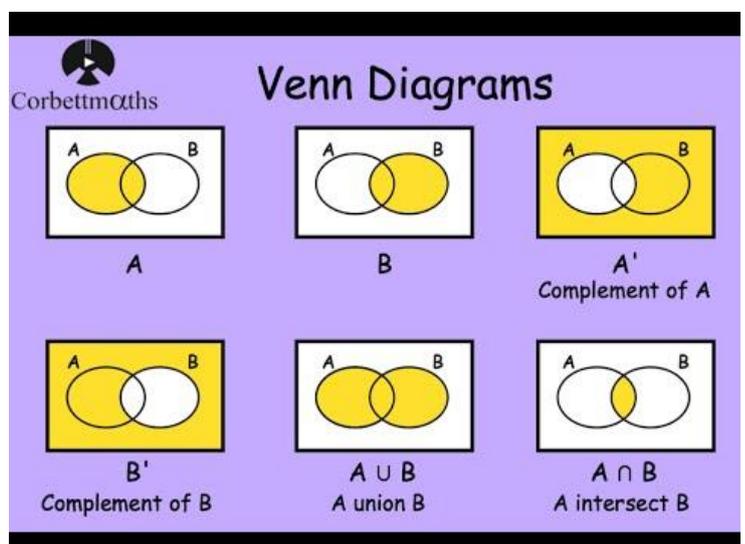
D
0

3 is impossible to the probability is 0. 6 appears twice out of 16 possible outcomes, $\frac{2}{16}$ cancels down to $\frac{1}{8}$

Task 1:

You will already have constructed and interpreted **Venn diagrams** (in last's summer term's focus on probability) and also used them in probability last week but I would like you to complete the **Mymaths lesson AND homework** I have assigned to get a little more practice on this. The **Venn Diagrams 1**. You will need to write some key notes into your orange class book, particularly focus on any new vocabulary such as:

- Universal set (all of the values/ outcomes that will be included in your diagram) represented with the Greek letter Xi: ξ or sometimes with the Greek letter Omega: Ω
- Intersection (in both sets)
- Union (in either set)
- Compliment (not in that set)



The Corbett Maths video [380](#) is very useful if you need more help in using Venn diagrams! There are more practice exam questions (and the answers) linked in the comment section if you'd like more practice!

Task 2:

Let's get more practice with **Venn diagram notation**. Please log on to **MathsWatch** and complete the **Venn diagrams assignment after first watching the linked videos**.

Task 3:

Have you been watching Britain's got Talent? My family and I have really enjoyed the magicians, especially Magical Bones! My children have been looking back at other magicians from the show and came across Dom on America's Got Talent. How did he predict that everyone (except Simon!) would end up pointing at the Tape Face? Watch this [clip](#)



Can you work it out? If you can - please email me to explain the 'magic' if you can. In today's session I would like you to work through the **Probability Fair investigation on Mymaths**, to find it, please type **'probability fair'** into the search box and it will be the first item on the list. The game on page 4 uses similar principles to Dom's Magic grid. Can you write an explanation in your books of how it works?

Well done year 9!

Have a great week, stay safe!

Best wishes,

Mrs Todd ☺