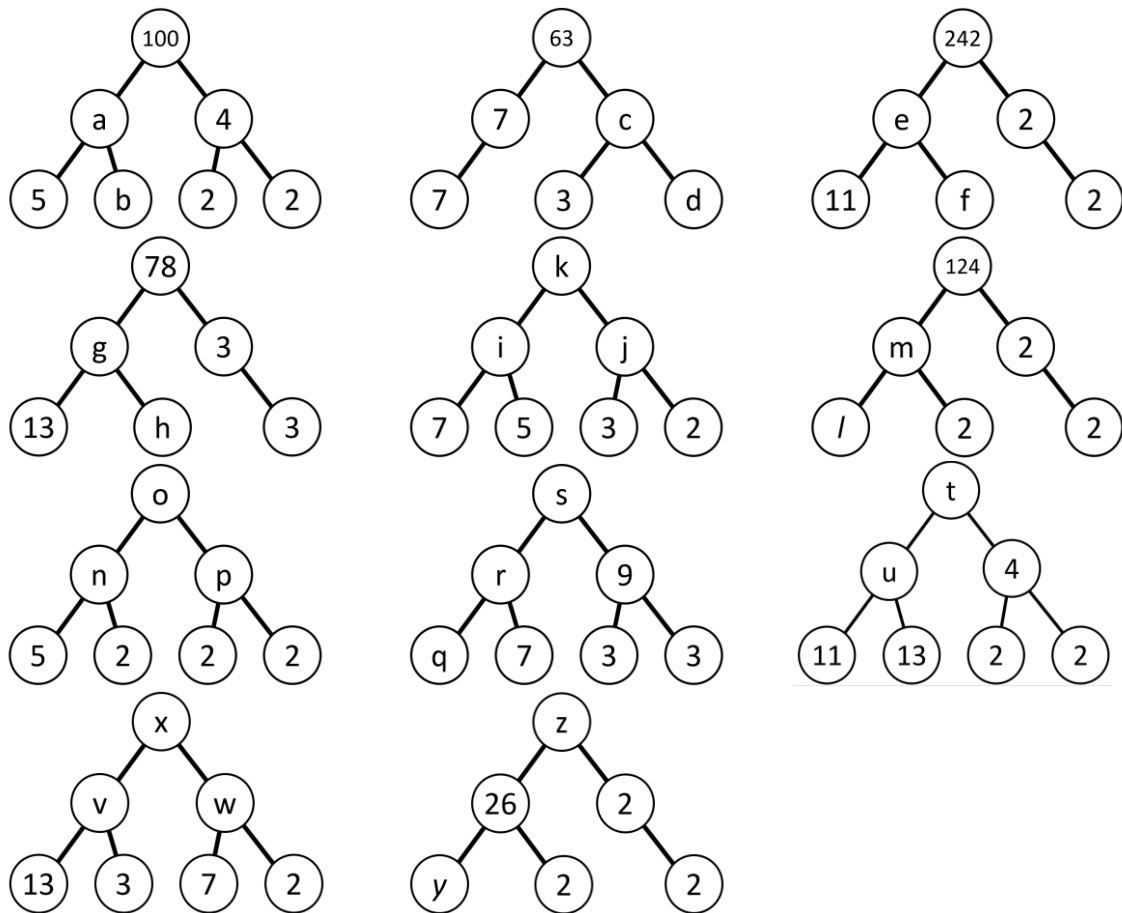


## Prime Vault – The Arboretum

Congratulations, you've made it to the second room, the Arboretum! You can put down the sieve for now, but don't throw it out. It's time to navigate a forest where numbers grow on trees. Good luck!

## Clue 2



Use the results from the factor trees to populate the table below.

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
25	5	9	3	121	11	26	2	35	6	210	31	62	10	40
p	q	r	s	t	u	v	w	x	y	z				
4	7	49	441	572	143	39	14	546	13	52				

Use the table above to decrypt the code below and complete the link for the next video: <https://youtu.be/>

<b>9*</b>	121	6	<b>7*</b>	3	<b>2*</b>	62	<b>11*</b>	10	<b>39*</b>	<b>35*</b>
C	e	j	Q	d	H	m	F	n	V	i

Follow the link, you know what to do;  
 The riddle contained provides more than a clue;  
 The four digits you acquire;  
 Must start with the higher.



Each successive document requires a code to open. Each video contains a riddle to solve. The solution to the riddle completes the code: "P V # # # #".

Video Link from activity: <https://youtu.be/CejQdHmTnVI> [Circuli Secretorum – Circle of Secrets]

To unlock the next activity you will need a four digit code. Answer the Riddle to access the code.

Four numbers are locked away,  
 Each built from prime DNA.  
 Uncover their roots, descend the mess,  
 Only the right order will allow you to progress.



"Each number built from prime DNA" – A clue that the numbers are prime. DNA refers to how they are built.

"Uncover their roots" – See below for the roots to unlock the four numbers.

$$353 = 7^3 \quad \therefore 7$$

$$243 = 3^5 \quad \therefore 3$$

$$512 = 2^9 \quad \therefore 2$$

$$625 = 5^4 \quad \therefore 5$$

The fact that we are looking for 'single' digits is also reinforced on the worksheet: "The four digits you acquire".

Descend the mess (write the digits in descending order): 7532.

The order of the digits is reinforced on the worksheet "...start with the higher".

Now the numbers are in the correct order, the result should unlock the next worksheet.

**P V 7 5 3 2**