



# BREAK THE CODE

The Pyramid of the  
Princess Sankhet

---

TEACHER'S GUIDE

---

Grades 3 - 6

---



Woot Math  
support@wootmath.com  
1-855-WOOT-MATH  
1-855-966-8628  
@wootmath



## STORYLINE

Thousands of years ago, the architect of the tomb of the Pharaoh, out of a desire for revenge, attempted to add a secret thieves' entrance to the tomb. However, the daughter of the Pharaoh—who was famous for her learning and a master of engineering—discovered this from his plans and added a trap to the hidden entrance. When the architect attempted to return and plunder the tomb, he was caught in her trap and died there.

The codes in the pyramid were left by her, and are a request for help; they lead you to the trapped entrance (which collapsed when the trap was sprung) and the body of the architect. You must discover how to enter the tomb and restore the stolen artifact, lest the curse of the tomb come down upon you.

---


## LOCATION

The Princess' pyramid, and an undiscovered tomb in The Valley of the Kings.

---

## CHARACTERS

The (long-dead) Princess, daughter of the Pharaoh  
The (long-dead) architect of the Pharaoh's tomb  
The team of Egyptologists restoring the Pyramid of the Princess (led by Martine Duchamp)







DAY  
1

Investigate the  
Princess's Pyramid

---

SOLVE THE CODE  
(which is a message from the Princess)

DISCOVER THE HIDDEN TOMB OF THE PHARAOAH





# INVESTIGATE THE PRINCESS PYRAMID

The objective of these puzzles is to find pairs of numbers that sum to the number at the top, left corner of the slide. 3 tiles will remain at the end. These leftover tiles have hieroglyphs on the back to reveal a message:

LEVEL 1: [SLIDE 18] - FIND PAIRS OF NUMBERS THAT ADD TO 89



ANSWER: REMAINING TILES ARE 20, 42, 73



MESSAGE TRANSLATION: "MAP TO"





LEVEL 2: [SLIDE 21] - FIND PAIRS OF NUMBERS THAT ADD TO 48



ANSWER: REMAINING TILES ARE 9, 22, 32



MESSAGE TRANSLATION: "HIDDEN"





LEVEL 3: [SLIDE 23] - FIND PAIRS OF NUMBERS THAT ADD TO 81



ANSWER: REMAINING TILES ARE 12, 32, 51



MESSAGE TRANSLATION: "PASSAGE"



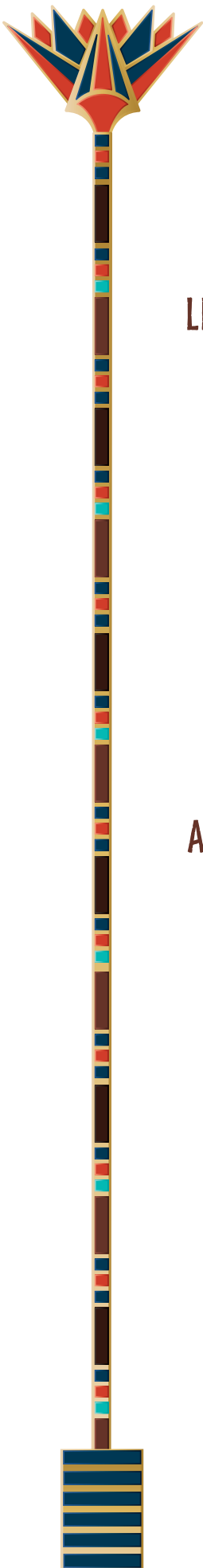
LEVEL 4: [SLIDE 25] - FIND PAIRS OF NUMBERS THAT ADD TO 80



ANSWER: REMAINING TILES ARE 9, 24, 62




MESSAGE TRANSLATION: "INSIDE"



# SOLVE THE CODE


LEVEL 1: [SLIDE 28]

	Odd	Even	x3	
Prime	<input type="text"/>	<input type="text"/>	<input type="text"/>	1 2 3
Square	<input type="text"/>	<input type="text"/>	<input type="text"/>	4 5 6
Factors Of 168	<input type="text"/>	<input type="text"/>	<input type="text"/>	7 8 9

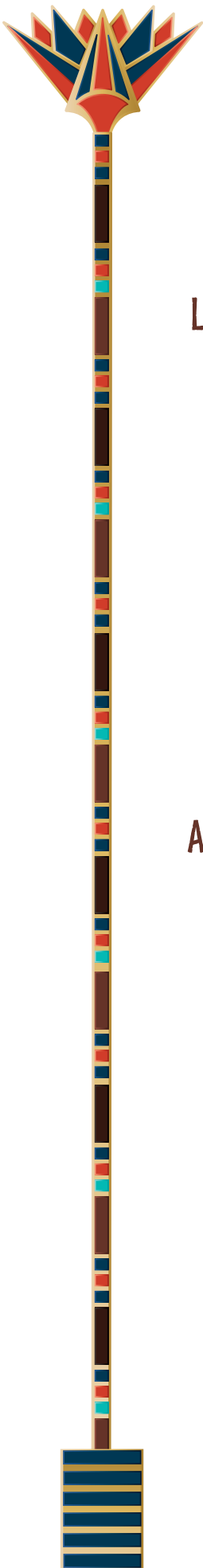


ANSWER:

	Odd	Even	x3	
Prime	5	2	3	
Square	1	4	9	
Factors Of 168	7	8	6	







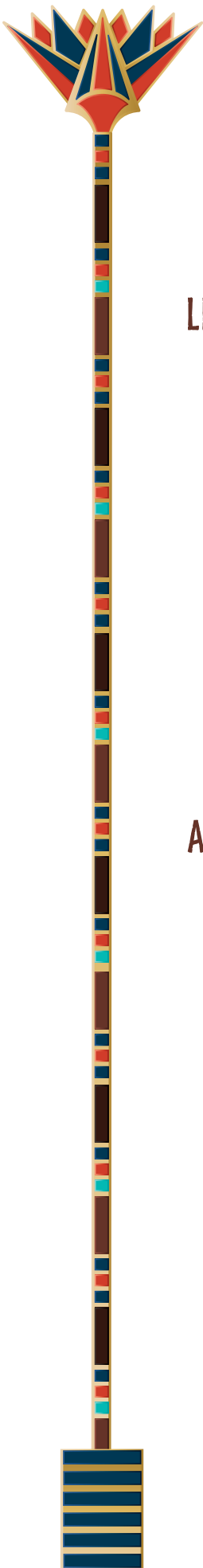
# SOLVE THE CODE

LEVEL 2: [SLIDE 30]

	Odd	Even	x3	
Prime	<input type="text"/>	<input type="text"/>	<input type="text"/>	2 3 9
Square	<input type="text"/>	<input type="text"/>	<input type="text"/>	14 16 17
Factors Of 168	<input type="text"/>	<input type="text"/>	<input type="text"/>	21 24 25

ANSWER:

	Odd	Even	x3	
Prime	17	2	3	
Square	25	16	9	
Factors Of 168	21	14	24	



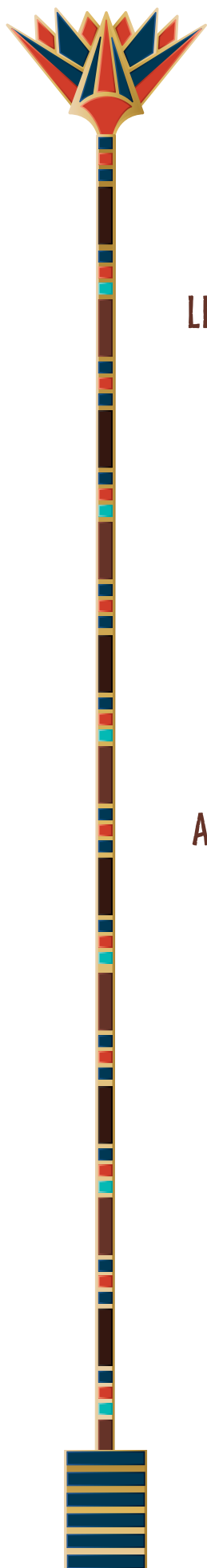
# SOLVE THE CODE

LEVEL 3: [SLIDE 32]

	Odd	Even	x3	
Prime	<input type="text"/>	<input type="text"/>	<input type="text"/>	2 3 7
Square	<input type="text"/>	<input type="text"/>	<input type="text"/>	21 28 42
Factors Of 168	<input type="text"/>	<input type="text"/>	<input type="text"/>	49 64 81

ANSWER:

	Odd	Even	x3	
Prime	7	2	3	
Square	49	64	81	
Factors Of 168	21	28	42	

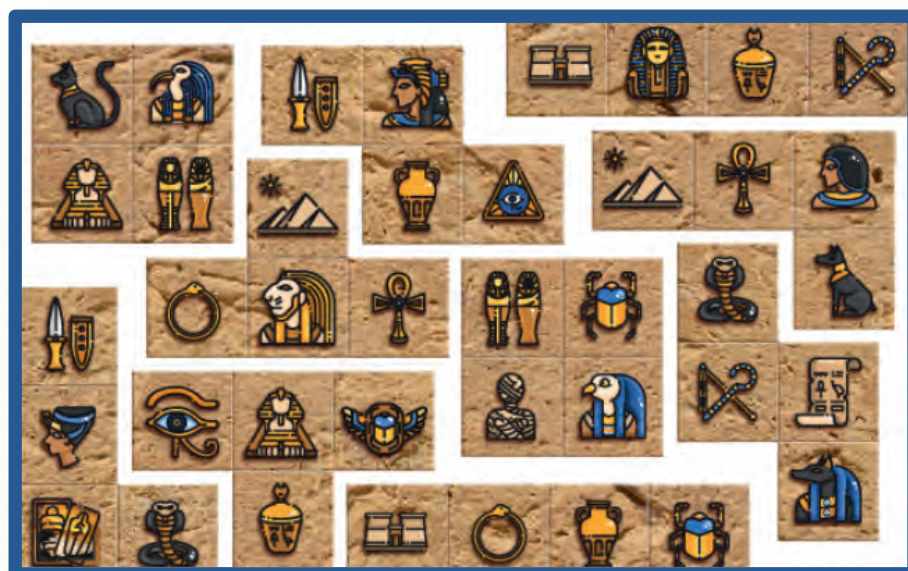


## DISCOVER THE HIDDEN TOMB

## LEVEL 1: [SLIDE 35]



**ANSWER:**





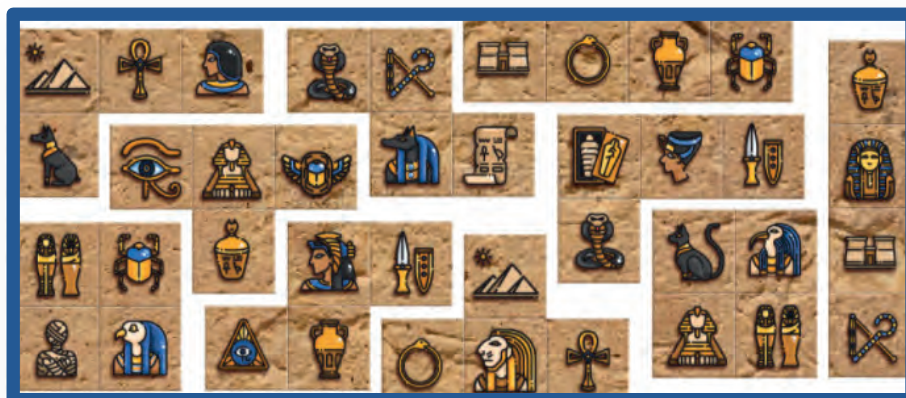


## DISCOVER THE HIDDEN TOMB

## LEVEL 2: [SLIDE 37]



**ANSWER:**

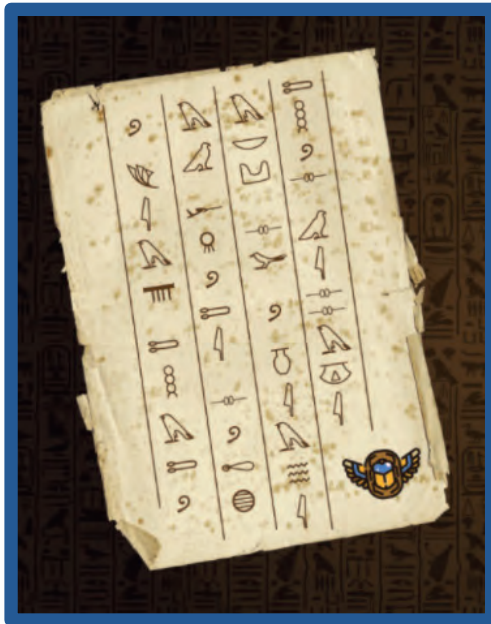




# DECIPHERING HIERGLYPHICS

Students translate the hieroglyphs into a message.

[SLIDE 39]



ANSWER: "I FEAR THAT I AM QUITE SICK, AND SO I LEAVE THIS MESSAGE"



## DAY 2

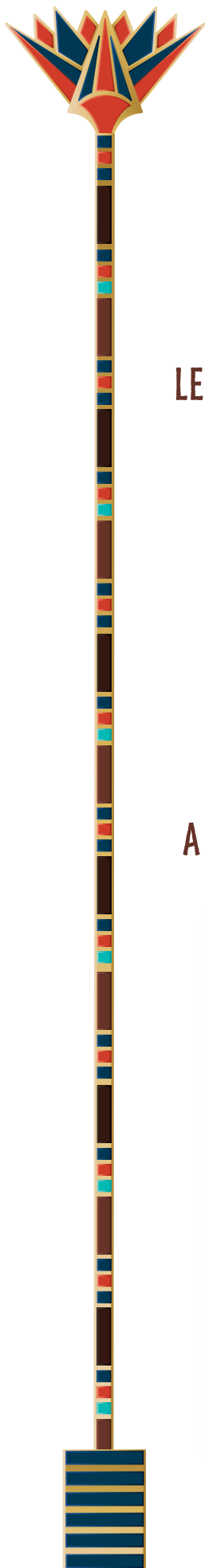
Investigate the  
Tomb

---

DISCOVER THE BODY OF THE ARCHITECT

FIND EVIDENCE OF HIS STORY





## DISCOVER THE BODY

Arrange the 6 figures in 3 two-person boats so that over the course of the five days they share a boat with all of the other figures.

LEVEL 1: [SLIDE 45]



A POSSIBLE CONFIGURATION IS:







LEVEL 1: [SLIDE 45] - PHARAOH CAN SEE 3 SQUARES OUT EACH WINDOW OF HIS HOUSE (THE CENTER SQUARE). PLACE THE 20 POTTERY JARS SO THAT 9 ARE VISIBLE FROM EACH WINDOW.



ANSWER:



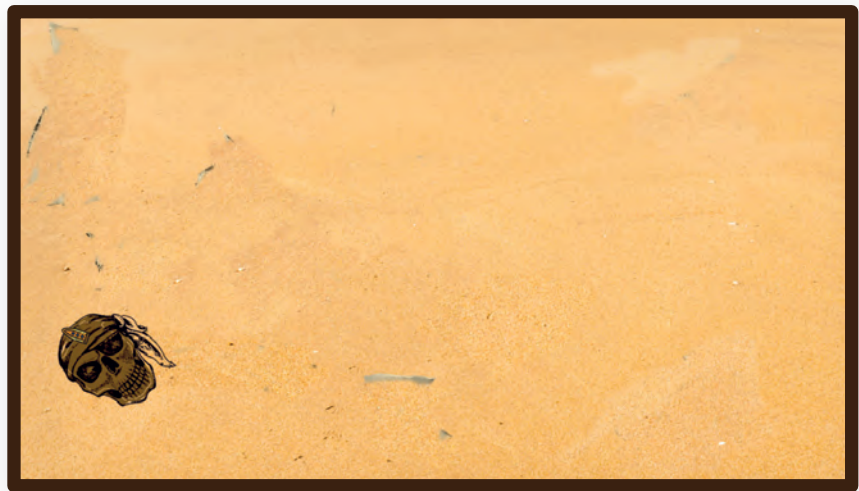




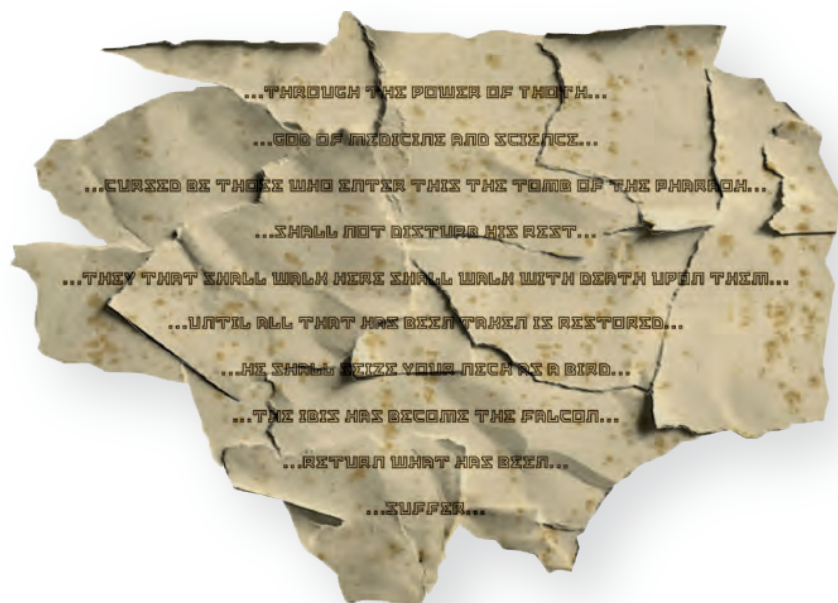
## FIND EVIDENCE

In this exercise, students will move sand around to reveal pieces of a paper that they will need to put together to read a message.

[SLIDE 51]



ANSWER:





DAY  
3

Find Your Way  
Into the Burial Chamber

---

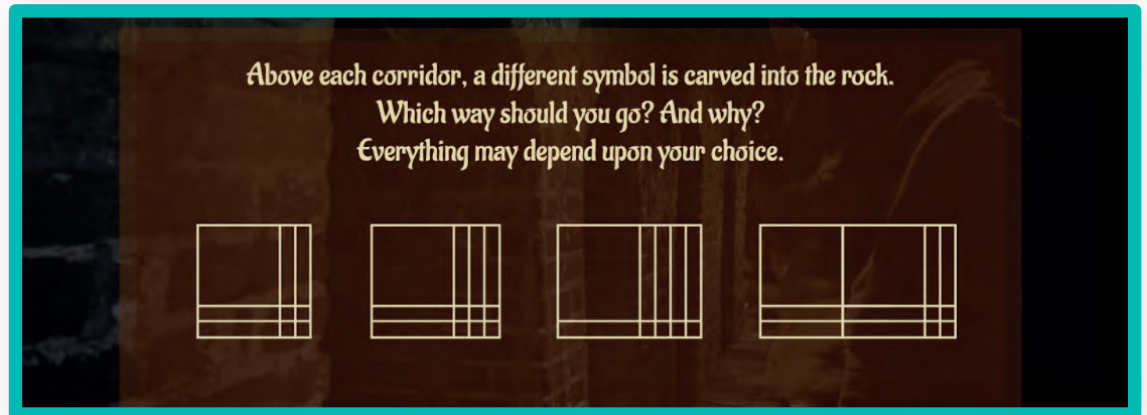
SOLVE THE WAY INTO THE TOMB

RETURN THE STOLEN ARTIFACT



## DISCOVER THE BODY

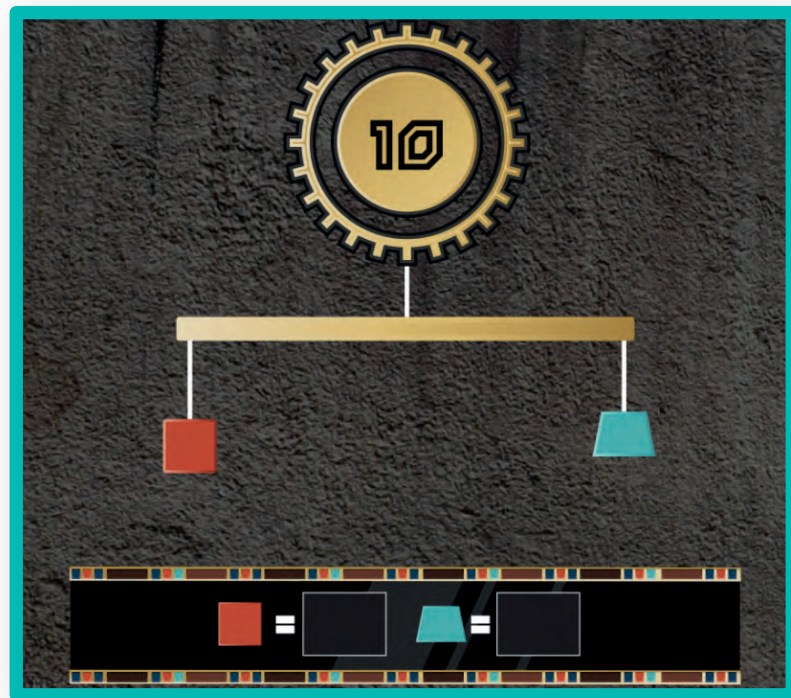
This is a type of problem where students discuss which one of the figures doesn't belong. It isn't about getting to an answer, just about them having a discussion about how to classify and sort the figures. Whichever one they decide does not belong is the corridor they take.







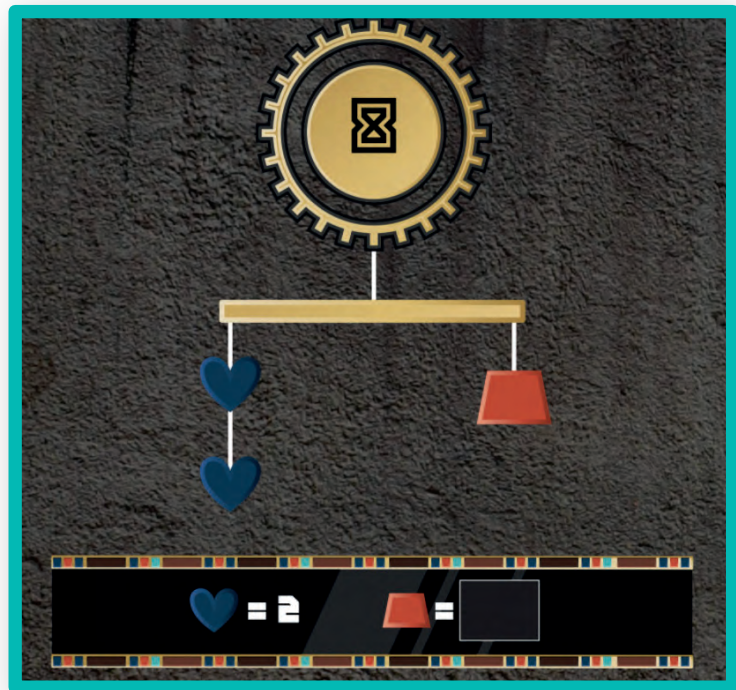
LEVEL 1: [SLIDE 59] - FIGURE OUT HOW TO GET FREE OF THE TRICK PASSAGE. SOLVE EACH BALANCE PROBLEM.



ANSWER: 5,5

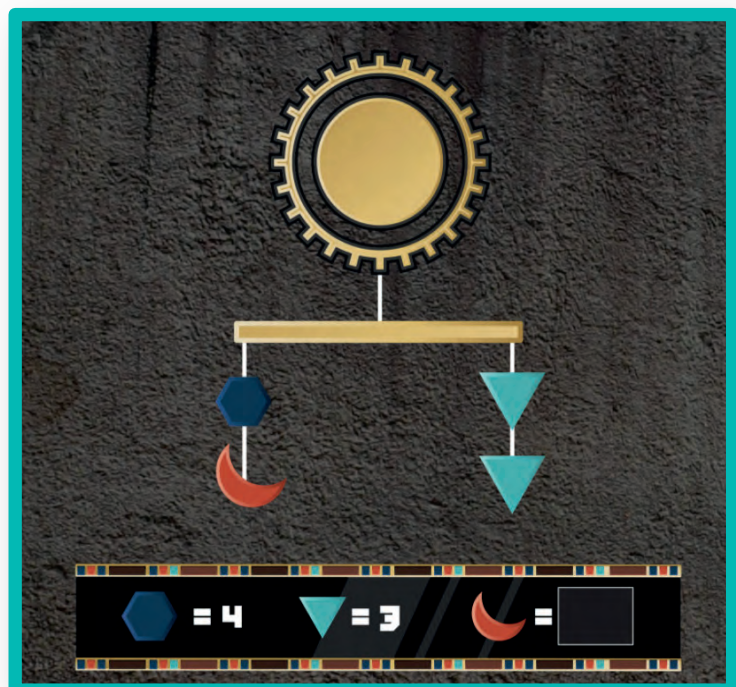


LEVEL 2: [SLIDE 61]



ANSWER: 4

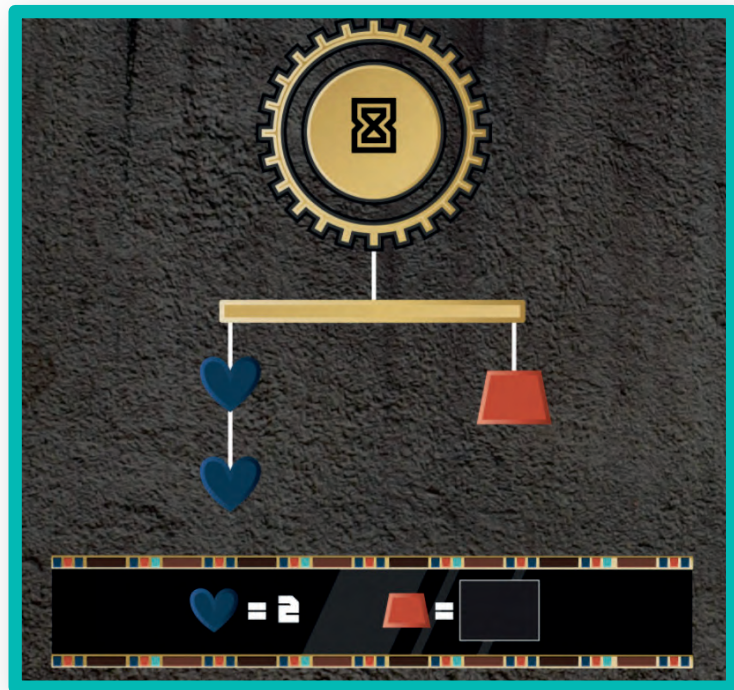
LEVEL 3: [SLIDE 63]



ANSWER: 2

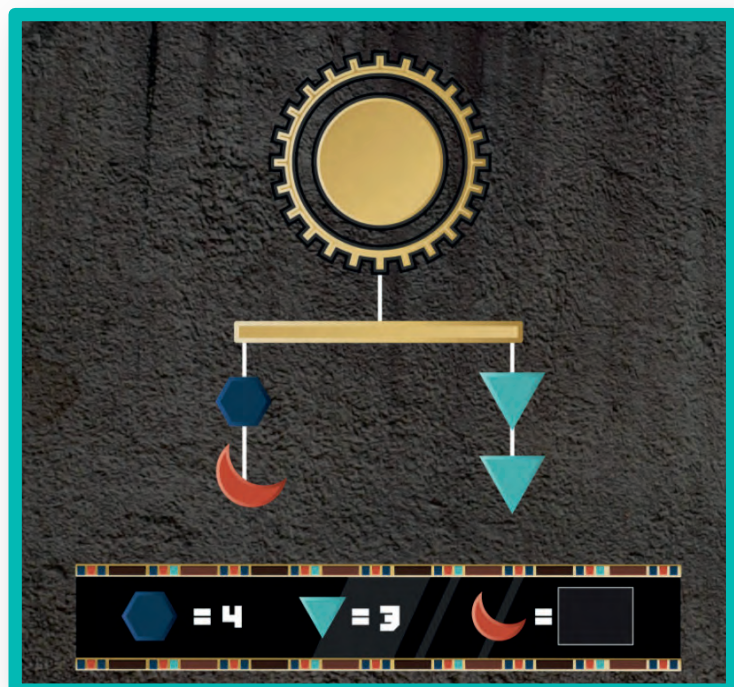


LEVEL 2: [SLIDE 61]



ANSWER: 4

LEVEL 3: [SLIDE 63]

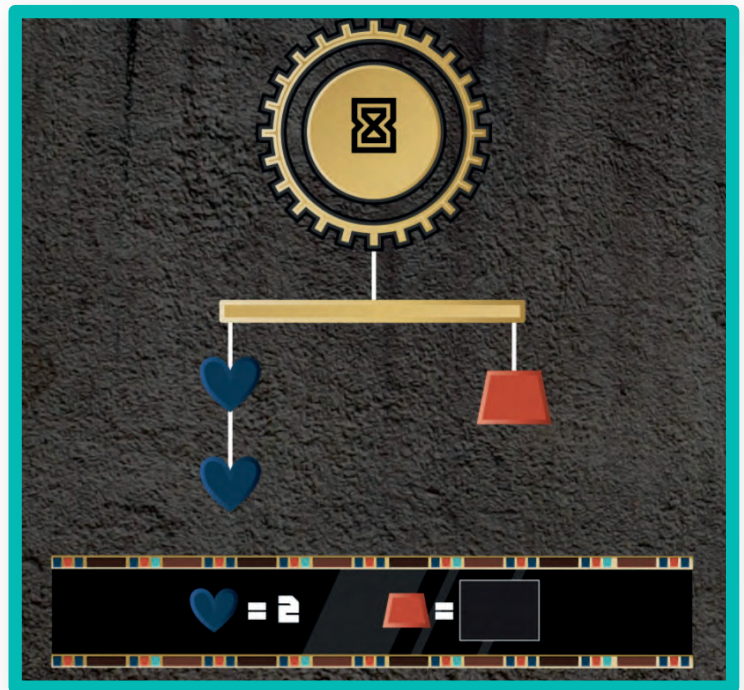


ANSWER: 2



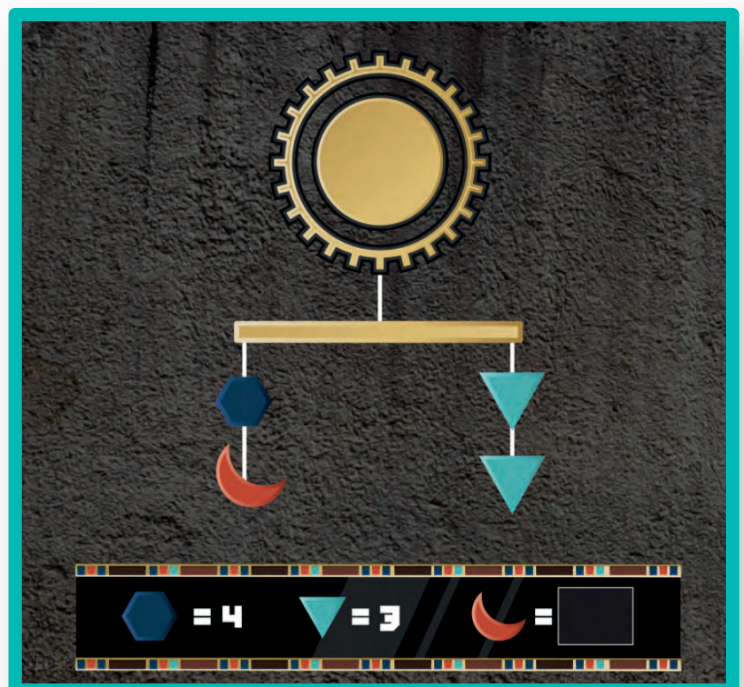


LEVEL 2: [SLIDE 61]



ANSWER: 4

LEVEL 3: [SLIDE 63]























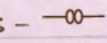




ANSWER: 2



# FOR REFERENCE

## Field Notes: Hieroglyphics

a - 	k - 	u - 
b - 	l - 	v - 
c - 	m - 	w - 
d - 	n - 	x - 
e - 	o - 	y - 
f - 	p - 	z - 
g - 	q - 	
h - 	r - 	
i - 	s - 	
j - 	t - 	





## LEVEL 1: [SLIDE 67]



### RIDDLE:

My value is even.  
My value is not less than five.  
My value is less than 8.

ANSWER: 6



## LEVEL 2: [SLIDE 68]



### RIDDLE:

I am a multiple of ten.  
I am greater than four squared.  
I am less than five squared.

ANSWER: 20



### LEVEL 3: [SLIDE 69]



#### RIDDLE:

All of my digits are the same.  
The sum of my digits is greater than twelve.  
The sum of my digits is less than sixteen.

ANSWER: 77





## LEVEL 4: [SLIDE 70]



### RIDDLE:

The sum of my digits is equal to six.  
My hundreds digit is equal to two more than my tens digit.  
My units digit is equal to one more than my tens digit.

ANSWER: 312



Translate the message in the sand or just read the message to them if you are getting low on time.

#### LEVEL 4: [SLIDE 70]



Message: “Thieves will not see the light of day ere their plunder is returned to where I lay.”



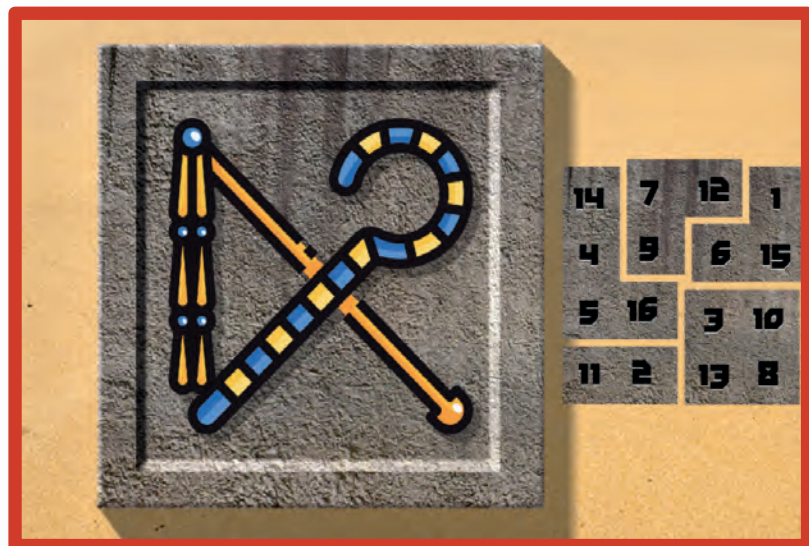
LEVEL 2: [SLIDE 77]

ANSWER:



LEVEL 3: [SLIDE 78]

ANSWER:



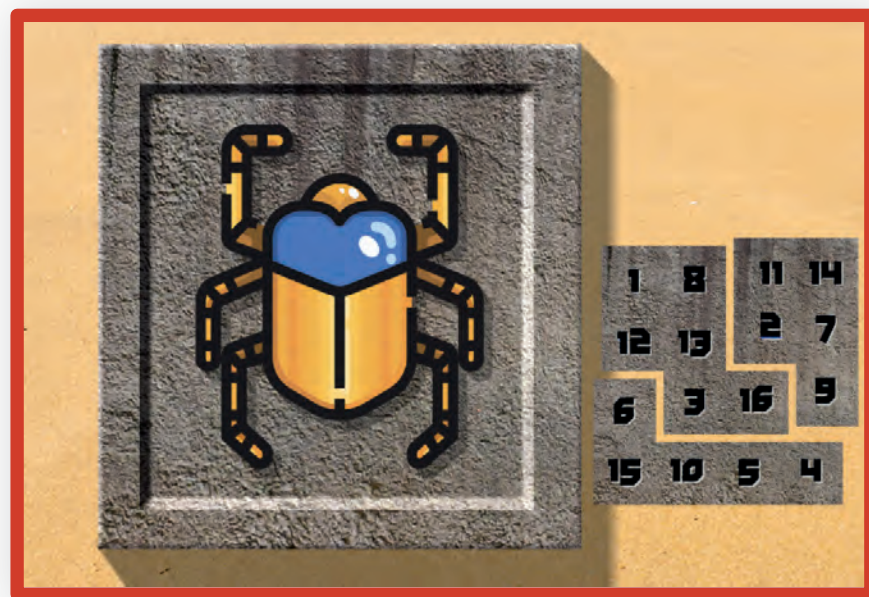




The students need to arrange the numbered pieces to cover each container holding an artifact. Every row, column and diagonal adds up to 34.

LEVEL 1: [SLIDE 76]

ANSWER:





## CONTACT

support@wootmath.com  
1-855-WOOT-MATH  
1-855-966-8628  
@wootmath