





Whodunnit?

Order of Operations (Advanced)

Ideal Unit: Order of Operations	Time Range: 20-40 Minutes	Supplies: Pencil & Paper
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Common Core Alignment:

This particular activity was mapped to these common core standards. *Whodunnit* activities are ideal as a small group skill practice.

6.EE.2d	2d. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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General Procedures:

A.) Give students a *Whodunnit Jr. Worksheet*. Students will need to solve the 10 problems about the topic. Each correct answer will result in a clue. Students will check off the Animal, the Location and the Problem depending on what they are given. The one remaining from each column is the correct solution. In this case it should be:

“The Mermi Fishlegs had a rotting pumpkins in the cemetery.”

B.) Print out the “Clues” and cut them out. I suggest you laminate them for future use. Spread them in different locations in the classroom and turn the students loose. Have teams of 2-3 circulate and attempt to figure out the clues. Once they think they have all the pieces, they can come to you to check their answer. If they are wrong, let them figure it out 😊



Whodunnit



Name : _____

On Halloween Night, there have been some shanigans going on in our community! The question is *Whodunnit*? You have to figure out who is the culprit, where they were, and what happened. Use the clues to rule out possibilities.

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.

???



Whodunnit?



What is the problem? After you get a clue, cross out any suspects you can rule out.

Person	
Hazel Wickedbroom <input type="checkbox"/>	
Headless McHorseface <input type="checkbox"/>	
Dr. Franklin Stein <input type="checkbox"/>	
Mommy Wrapstar <input type="checkbox"/>	
Mermi Fishlegs <input type="checkbox"/>	
Draco Youngblood <input type="checkbox"/>	
Inviz Clearperson <input type="checkbox"/>	
Zombo Brainlunch <input type="checkbox"/>	

Location
Attic <input type="checkbox"/>
Basement <input type="checkbox"/>
Cemetery <input type="checkbox"/>
Haunted House <input type="checkbox"/>
Old Prison <input type="checkbox"/>

Problem
Ate all the Candy <input type="checkbox"/>
Broke Giant Skeleton <input type="checkbox"/>
Covered in Spiders <input type="checkbox"/>
Rotting Pumpkins <input type="checkbox"/>
Stuck in Costume <input type="checkbox"/>

Write about what happened...

???

???

Clue #1

WEOOONNNI?

$$6 + 1^4 =$$

- | | | |
|------|---|--|
| 7 | → | It was not Draco Youngblood or Zombo Brainlunch. |
| 10 | → | They did not have rotting pumpkins. |
| 28 | → | They did not break the giant skeleton. |
| 2401 | → | Not in the haunted house or the cemetery. |

WEOOONNNI?

Clue #2

$$3^4 - 2^3 =$$

- | | | |
|----|---|--|
| 1 | → | It was not Mermi Fishlegs. |
| 4 | → | It was not in the attic. |
| 37 | → | Not in the old prison. |
| 73 | → | They did not break the giant skeleton. |

???

???

Clue #3

WEDDUNNIT?

$$(4 + 1)^3 =$$

- 13 → It was not Dr. Franklin Stein.
- 15 → They were not stuck in their costume.
- 125 → It was not Dr. Franklin Stein or Mommy Wrapstar.
- 625 → They were not covered in spiders.

WEDDUNNIT?

Clue #4

$$8 + (6 - 8)^3 =$$

- 0 → Not in the attic.
- 2 → It was not Headless McHorseface or Mermi Fishlegs.
- 2 → It was not Zombo Brainlunch or Mermi Fishlegs.
- 6 → Not in the old prison or the haunted house.

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Clue #5

WEDDUNNIT?

$$(1 + 3 \times 2)^3 =$$

- 24 → They did not eat all the candy.
- 81 → It was not Hazel Wickedbroom or Inviz Clearperson.
- 343 → Not in the basement or the old prison.
- 512 → They were not covered in spiders.

WEDDUNNIT?

Clue #6

$$9 + (6 + 10 \div 2)^2 =$$

- 25 → Not in the haunted house.
- 31 → It was not Inviz Clearperson.
- 73 → It was not Mommy Wrapstar or Inviz Clearperson.
- 130 → They did not eat all the candy.

???

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Clue #7

WEDDUNNIT?

$$(5 - 3 \times 2)^4 + 5 =$$

- 1 → Not in the cemetery
- 4 → They did not break the giant skeleton.
- 6 → They were not stuck in their costume.
- 9 → Not the old prison.

WEDDUNNIT?

Clue #8

$$8^2 - (9 - 6 \div 3)^3 =$$

- 13 → Not in the cemetery.
- 17 → They did not have rotting pumpkins.
- 63 → It was not Mommy Wrapstar.
- 279 → It was not Inviz Clearperson or Hazel Wickedbroom.

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Clue #9

WBOONNNN??

$$\left(\frac{2}{3}\right)^2 \times 3^2 =$$

$\frac{2}{3}$

→ It was not Mermi Fishlegs or covered in spiders.

2

→ It was not Headless McHorseface or rotting pumpkins.

4

→ Not in the haunted house.

9

→ Not in the cemetery.

WBOONNNN??

Clue #10

$$\left(\frac{1}{4} - \frac{1}{2}\right)^2 =$$

$\frac{1}{2}$

→ Not in the cemetery.

$\frac{1}{16}$

→ It was not Headless McHorseface or covered in spiders.

$-\frac{1}{4}$

→ Not in the haunted house.

$-\frac{1}{2}$

→ It was not Mermi Fishlegs or rotting pumpkins.

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???

Alternate Ending

WBOONNNN??

"Headless McHorseface had a covered in spiders in the cemetery."

WBOONNNN??

Clue #10

$$\left(\frac{1}{4} - \frac{1}{2}\right)^2 =$$

$\frac{1}{2}$



Not in the cemetery.

$\frac{1}{16}$



It was not Mermi Fishlegs or rotting pumpkins.

$-\frac{1}{4}$



Not in the haunted house.

$-\frac{1}{2}$



It was not Headless McHorseface or covered in spiders.

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