



The Mystery of the Shattered Beacon

Grade 4 math · Place value, Addition, Subtraction, Word problems, Division · Reading level grades 3-4

Detective: _____ Date: _____

Someone broke into the spawn castle and smashed the legendary rainbow beacon! Blocks are missing and redstone is everywhere. We need your help to find the Griefer!

1. Solve each math problem. The answer is a number, and the letter beside it is what that number stands for.
2. In the clue boxes, write that letter in every box showing the same number, then read the secret clue.
3. Use each clue to cross suspects off the list. The one suspect left at the end is the culprit!

My answer: the Griefer is _____

Possible suspects

Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	FAVORITE TOOL	POTION EFFECT	MINING STYLE	SKIN HAIR COLOR	ITEM WEAKNESS
GeorgeNotFound	enchanted bow	fire resistance	right-handed builder	steve brown hair	glowstone dust
PhilaZA	prismarine trident	invisibility	left-handed builder	alex orange hair	glowstone dust
Hannahxxrose	splash potion	invisibility	left-handed builder	steve brown hair	glowstone dust
Ranboo	splash potion	speed potions	left-handed builder	alex orange hair	glowstone dust
Awesamdude	diamond sword	strength booster	left-handed builder	steve brown hair	glowstone dust
DanTDM	prismarine trident	strength booster	left-handed builder	alex orange hair	glowstone dust
HermitGrian	diamond sword	invisibility	left-handed builder	steve brown hair	glowstone dust
Dream	prismarine trident	fire resistance	right-handed builder	ender purple hair	splash water bottle
LDShadowLady	netherite axe	speed potions	left-handed builder	alex orange hair	glowstone dust
Antfrost	netherite axe	speed potions	left-handed builder	steve brown hair	glowstone dust
Skeppy	netherite axe	speed potions	right-handed builder	alex orange hair	glowstone dust
CaptainSparklez	enchanted bow	night vision	left-handed builder	steve brown hair	glowstone dust
Smallishbeans	prismarine trident	invisibility	left-handed builder	steve brown hair	milk bucket
BadBoyHalo	splash potion	invisibility	left-handed builder	ender purple hair	milk bucket
TommyInnit	diamond sword	speed potions	left-handed builder	ender purple hair	glowstone dust
JackManifold	splash potion	speed potions	right-handed builder	ender purple hair	splash water bottle
Sapnap	prismarine trident	speed potions	left-handed builder	steve brown hair	splash water bottle
CaptainPuffy	diamond sword	fire resistance	left-handed builder	steve brown hair	splash water bottle
StampyCat	enchanted bow	speed potions	left-handed builder	steve brown hair	glowstone dust
Purpled	splash potion	fire resistance	right-handed builder	steve brown hair	glowstone dust
Technoblade	enchanted bow	strength booster	left-handed builder	steve brown hair	splash water bottle

CLUE 1 Place value

We found a coordinates device dropped in the mud. Look at the digit in the hundreds place to unlock the first clue.

Solve each problem, then write its letter in every clue box that shows the same number.

T																T
6000	30	300	90	70	400	300	9000	300	70	5000	40	300	50	700	40	6000
													T			
1000	50	300	400	700	10	400	50	400	500	400	4000	400	6000	200		

What is the value of the 6 in 86,494? → **T**

What is the value of the 4 in 9,482? → **I**

What is the value of the 3 in 836? → **H**

What is the value of the 5 in 8,154? → **S**

What is the value of the 4 in 84,359? → **L**

What is the value of the 5 in 5,239? → **D**

What is the value of the 1 in 4,710? → **V**

What is the value of the 5 in 537? → **B**

What is the value of the 7 in 754? → **N**

What is the value of the 3 in 390? → **E**

What is the value of the 4 in 246? → **O**

What is the value of the 9 in 29,041? → **F**

What is the value of the 2 in 7,235? → **Y**

What is the value of the 9 in 2,896? → **G**

What is the value of the 7 in 1,576? → **R**

What is the value of the 1 in 1,235? → **U**

Scratch space:

CLUE 2

A hidden hopper holds a chest full of resources. Let us add up all the iron bars inside to find the second clue.

Solve each problem, then write its letter in every clue box that shows the same number.

Diagram illustrating a 2D array structure with two rows of boxes. The first row contains 15 boxes, and the second row contains 7 boxes. Some boxes are highlighted in orange and contain the letter 'L'.

Row 1 (15 boxes):

- Box 1: Orange, contains 'L', value 9813
- Box 2: value 5445
- Box 3: value 6104
- Box 4: value 6419
- Box 5: value 5186
- Box 6: value 4130
- Box 7: value 7144
- Box 8: value 4926
- Box 9: value 5445
- Box 10: value 4926
- Box 11: value 9528
- Box 12: value 4122
- Box 13: value 7963
- Box 14: value 7144
- Box 15: value 5989

Row 2 (7 boxes):

- Box 1: value 6241
- Box 2: value 7144
- Box 3: value 4122
- Box 4: value 4130
- Box 5: Orange, contains 'L', value 9813
- Box 6: Orange, contains 'L', value 9813
- Box 7: value 9528

$$6429 + 3384 = \boxed{} \rightarrow \boxed{\text{L}}$$

$4101 + 3043 = \boxed{} \rightarrow \boxed{\text{N}}$

$$2433 + 1697 = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

$$3302 + 4661 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$2735 + 3506 = \boxed{} \rightarrow \boxed{\mathbf{0}}$$

$$2101 + 2021 = \boxed{} \rightarrow \boxed{\text{W}}$$

$$4511 + 2576 = \boxed{} \rightarrow \boxed{\text{R}}$$

$1956 + 1572 = \boxed{} \rightarrow \boxed{\text{M}}$

$$1032 + 1283 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$3871 + 5657 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$3467 + 2952 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$1834 + 3352 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$2773 + 3216 = \boxed{} \rightarrow \boxed{\text{G}}$$

$1570 + 3356 = \boxed{} \rightarrow \boxed{\text{D}}$

$3579 + 2525 = \boxed{} \rightarrow \boxed{\text{F}}$

$1742 + 3703 = \boxed{} \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 3
Subtraction

The Griever took some falling damage. Subtract the hearts they lost from their total health to get the next clue.

Solve each problem, then write its letter in every clue box that shows the same number.

W													W						
1569	6476	1194	1249	1194	1045	1194	4422	1820	6490	4488	1045	4634	5914	1569	6490	4488	5914	1820	6476

5969	6398	6490	4488

$2322 - 753 = \square \rightarrow \boxed{\text{W}}$

$8468 - 2070 = \square \rightarrow \boxed{\text{U}}$

$6559 - 2137 = \square \rightarrow \boxed{\text{I}}$

$7105 - 1191 = \square \rightarrow \boxed{\text{O}}$

$5440 - 952 = \square \rightarrow \boxed{\text{T}}$

$5810 - 4561 = \square \rightarrow \boxed{\text{K}}$

$4742 - 2922 = \square \rightarrow \boxed{\text{N}}$

$9449 - 3480 = \square \rightarrow \boxed{\text{D}}$

$4338 - 3293 = \square \rightarrow \boxed{\text{G}}$

$4892 - 3698 = \square \rightarrow \boxed{\text{A}}$

$7011 - 2377 = \square \rightarrow \boxed{\text{L}}$

$7412 - 936 = \square \rightarrow \boxed{\text{E}}$

$8892 - 2402 = \square \rightarrow \boxed{\text{S}}$

Scratch space:

CLUE 4

Word problems

An old crafting book holds recipes with missing ingredients. Solve these word problems to unlock the fourth clue.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A strand of S W N H A I hair turned up at the scene.

48 12 41 20 41 32 14 40 14

There were 80 obsidian blocks. 32 were used up. How many obsidian blocks are left?

Answer: → S

There were 30 golden apples. 16 were used up. How many golden apples are left?

Answer: → R

Alex the Builder lined up 8 rows of 4 redstone dust. How many redstone dust in all?

Answer: → B

Alex the Builder lined up 8 rows of 5 golden apples. How many golden apples in all?

Answer: → O

There were 33 diamonds. 21 were used up. How many diamonds are left?

Answer: → T

There were 67 emeralds. 26 were used up. How many emeralds are left?

Answer: → E

Alex the Builder lined up 2 rows of 10 redstone dust. How many redstone dust in all?

Answer: → V

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

We need to divide our torches equally among the search teams. Share them out to reveal the final clue.

First solve each problem. Then find each answer in the numbered list below and cross that sentence out. One sentence will be left - that is exactly what the villain did!

Step 1 - solve these:

$120 \div 12 = \boxed{}$

$28 \div 4 = \boxed{}$

$77 \div 7 = \boxed{}$

$12 \div 12 = \boxed{}$

$8 \div 1 = \boxed{}$

$15 \div 3 = \boxed{}$

$20 \div 10 = \boxed{}$

$18 \div 3 = \boxed{}$

$24 \div 8 = \boxed{}$

$12 \div 3 = \boxed{}$

$54 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain looted the desert temple, then fled on an elytra.
2. The villain looted the desert temple, then rode off in a minecart.
3. The villain mined the diamond vault, then teleported with an ender pearl.
4. The villain grieved the castle wall, then escaped on a fast horse.
5. The villain mined the diamond vault, then rode off in a minecart.
6. The villain flooded the redstone maze, then fled through a nether portal.
7. The villain mined the diamond vault, then fled on an elytra.
8. The villain grieved the castle wall, then rode off in a minecart.
9. The villain looted the desert temple, then escaped on a fast horse.
10. The villain stole the dragon egg, then escaped on a fast horse.
11. The villain stole the dragon egg, then fled through a nether portal.
12. The villain grieved the castle wall, then fled through a nether portal.

Answer Key

The Mystery of the Shattered Beacon

Culprit: Antfrost

netherite axe · speed potions · left-handed builder · steve brown hair · glowstone dust

Trail: Start 21 → Clue 1 16 → Clue 2 11 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE GRIEFER DOES NOT USE INVISIBILITY"

What is the value of the 6 in 86,494? = 6000 (T) · What is the value of the 4 in 9,482? = 400 (I) · What is the value of the 3 in 836? = 30 (H) · What is the value of the 5 in 8,154? = 50 (S) · What is the value of the 4 in 84,359? = 4000 (L) · What is the value of the 5 in 5,239? = 5000 (D) · What is the value of the 1 in 4,710? = 10 (V) · What is the value of the 5 in 537? = 500 (B) · What is the value of the 7 in 754? = 700 (N) · What is the value of the 3 in 390? = 300 (E) · What is the value of the 4 in 246? = 40 (O) · What is the value of the 9 in 29,041? = 9000 (F) · What is the value of the 2 in 7,235? = 200 (Y) · What is the value of the 9 in 2,896? = 90 (G) · What is the value of the 7 in 1,576? = 70 (R) · What is the value of the 1 in 1,235? = 1000 (U)

Clue 2 (Addition): "LEFT HANDED SWING MARKS ON WALLS"

6429 + 3384 = 9813 (L) · 4101 + 3043 = 7144 (N) · 2433 + 1697 = 4130 (A) · 3302 + 4661 = 7963 (I) · 2735 + 3506 = 6241 (O) · 2101 + 2021 = 4122 (W) · 4511 + 2576 = 7087 (R) · 1956 + 1572 = 3528 (M) · 1032 + 1283 = 2315 (K) · 3871 + 5657 = 9528 (S) · 3467 + 2952 = 6419 (T) · 1834 + 3352 = 5186 (H) · 2773 + 3216 = 5989 (G) · 1570 + 3356 = 4926 (D) · 3579 + 2525 = 6104 (F) · 1742 + 3703 = 5445 (E)

Clue 3 (Subtraction): "WEAK AGAINST GLOWSTONE DUST"

2322 - 753 = 1569 (W) · 8468 - 2070 = 6398 (U) · 6559 - 2137 = 4422 (I) · 7105 - 1191 = 5914 (O) · 5440 - 952 = 4488 (T) · 5810 - 4561 = 1249 (K) · 4742 - 2922 = 1820 (N) · 9449 - 3480 = 5969 (D) · 4338 - 3293 = 1045 (G) · 4892 - 3698 = 1194 (A) · 7011 - 2377 = 4634 (L) · 7412 - 936 = 6476 (E) · 8892 - 2402 = 6490 (S)

Clue 4 (Word problems): "STEVE BROWN HAIR"

There were 80 obsidian blocks. 32 were used up. How many obsidian blocks are left? = 48 (S) · There were 30 golden apples. 16 were used up. How many golden apples are left? = 14 (R) · Alex the Builder lined up 8 rows of 4 redstone dust. How many redstone dust in all? = 32 (B) · Alex the Builder lined up 8 rows of 5 golden apples. How many golden apples in all? = 40 (O) · There were 33 diamonds. 21 were used up. How many diamonds are left? = 12 (T) · There were 67 emeralds. 26 were used up. How many emeralds are left? = 41 (E) · Alex the Builder lined up 2 rows of 10 redstone dust. How many redstone dust in all? = 20 (V)

Clue 5 (Division facts (1-12)): surviving statement is box 12 → Antfrost

120 ÷ 12 = 10 · 28 ÷ 4 = 7 · 77 ÷ 7 = 11 · 12 ÷ 12 = 1 · 8 ÷ 1 = 8 · 15 ÷ 3 = 5 · 20 ÷ 10 = 2 · 18 ÷ 3 = 6 · 24 ÷ 8 = 3 · 12 ÷ 3 = 4 · 54 ÷ 6 = 9