



The Case of the Missing Golden Apple

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

Detective: _____ Date: _____

Someone hacked into the Diamond Hills server and stole the legendary Golden Apple! The Server Admin needs your help. Decode the math puzzles to find the coordinates, gather clues, and unmask the Mysterious 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 Mysterious Griefer is _____

Possible suspects

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

NAME	HACKED CLIENT	SPAWNED GEAR	DOMINANT HAND	CHARACTER HEADWEAR	IN-GAME COUNTER
Steve	instabreak	wolf pack	left handed	red leather hat	water bucket
MumboJumbo	fly mode	netherite sword	left handed	red leather hat	water bucket
Philza	speed hack	elytra wings	right handed	red leather hat	snowballs
Aphmau	fly mode	netherite sword	right handed	blue diamond helm	snowballs
WilburSoot	fly mode	netherite sword	right handed	red leather hat	snowballs
PrestonPlayz	x ray vision	tamed ocelot	right handed	red leather hat	splash potion
GamingWithJen	speed hack	wolf pack	left handed	blue diamond helm	water bucket
Tubbo	fly mode	elytra wings	right handed	green creeper cap	water bucket
PopularMMOS	teleport	tamed ocelot	left handed	red leather hat	snowballs
CaptainSparklez	x ray vision	wolf pack	right handed	red leather hat	snowballs
SkyDoesMC	teleport	netherite sword	right handed	green creeper cap	water bucket
Dream	x ray vision	elytra wings	right handed	red leather hat	snowballs
Technoblade	x ray vision	elytra wings	left handed	blue diamond helm	splash potion
Alex	x ray vision	elytra wings	right handed	blue diamond helm	splash potion
VintageBeef	speed hack	tamed ocelot	right handed	blue diamond helm	snowballs
Stampy	speed hack	tamed ocelot	left handed	green creeper cap	splash potion
DanTDM	instabreak	elytra wings	left handed	red leather hat	snowballs
Iskall	teleport	netherite sword	right handed	green creeper cap	snowballs
Grian	instabreak	netherite sword	right handed	red leather hat	water bucket
LDShadowLady	speed hack	tamed ocelot	right handed	red leather hat	snowballs
Sapnap	teleport	diamond armor	left handed	green creeper cap	splash potion

CLUE 1 Place value

We found a weird code on a coordinate block. Let us check the digit in the hundreds place to unlock the coordinate message.

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

T																T
500	200	300	70	40	7000	7000	400	40	6000	8000	5000	300	4000	6000	5000	500
20	5000	10	10	400	6000	8000	400	100	5000	7000	3000	50	400	20	800	

What is the value of the 5 in 1,583? → **T**

What is the value of the 5 in 5,360? → **O**

What is the value of the 7 in 7,294? → **L**

What is the value of the 6 in 16,575? → **N**

What is the value of the 4 in 349? → **I**

What is the value of the 7 in 8,274? → **V**

What is the value of the 3 in 3,559? → **F**

What is the value of the 8 in 892? → **K**

What is the value of the 4 in 420? → **A**

What is the value of the 3 in 386? → **E**

What is the value of the 4 in 24,976? → **S**

What is the value of the 8 in 8,265? → **D**

What is the value of the 2 in 9,215? → **H**

What is the value of the 1 in 5,172? → **W**

What is the value of the 2 in 127? → **C**

What is the value of the 5 in 6,658? → **P**

What is the value of the 1 in 914? → **M**

Scratch space:

CLUE 2 Addition

A player gathered oak logs and birch logs to build a defense tower. Let us add the two piles to find the total wood collected.

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

T																			
7673	8996	9271	9371	9894	3007	4728	7327	5015	8583	9271	6987	9271	3715	9894	8727	4728	9271	2609	
		T		T							T								
8583	8334	7673	8996	7673	8996	9271	6987	8334	6552	8996	7673	8996	8727	8186	2609				

$3809 + 3864 = \square \rightarrow$ T	$3902 + 5992 = \square \rightarrow$ L	$2068 + 2660 = \square \rightarrow$ C
$5823 + 3448 = \square \rightarrow$ E	$4638 + 3945 = \square \rightarrow$ W	$3747 + 3240 = \square \rightarrow$ R
$5549 + 3447 = \square \rightarrow$ H	$2871 + 3681 = \square \rightarrow$ G	$3585 + 3742 = \square \rightarrow$ K
$4797 + 4574 = \square \rightarrow$ B	$3972 + 4214 = \square \rightarrow$ N	$3620 + 5107 = \square \rightarrow$ A
$1613 + 2102 = \square \rightarrow$ P	$4581 + 3753 = \square \rightarrow$ I	$1674 + 1333 = \square \rightarrow$ O
$1812 + 3203 = \square \rightarrow$ S	$1436 + 1173 = \square \rightarrow$ D	

Scratch space:

CLUE 3

Subtraction

An explosion took away some iron ingots from the community chest. Let us subtract the missing amount to see what remains.

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

A		A			A										A			
6864	3461	6864	5058	5058	6864	1858	8251	1303	8646	8374	8498	1303	7088	3461	6864	8453	8453	8374

7088	5870	8453	8453	8374	8453	1303	7088	6884	4513	8251	2233	2230	1303	7088	8498

$11061 - 4197 = \square \rightarrow \boxed{\text{A}}$

$8635 - 384 = \square \rightarrow \boxed{\text{E}}$

$10642 - 4772 = \square \rightarrow \boxed{\text{I}}$

$8928 - 430 = \square \rightarrow \boxed{\text{N}}$

$9616 - 1163 = \square \rightarrow \boxed{\text{L}}$

$4755 - 2525 = \square \rightarrow \boxed{\text{D}}$

$3524 - 2221 = \square \rightarrow \boxed{\text{O}}$

$10218 - 1572 = \square \rightarrow \boxed{\text{F}}$

$9021 - 4508 = \square \rightarrow \boxed{\text{H}}$

$8679 - 305 = \square \rightarrow \boxed{\text{S}}$

$8089 - 1205 = \square \rightarrow \boxed{\text{T}}$

$7645 - 2587 = \square \rightarrow \boxed{\text{R}}$

$7793 - 4332 = \square \rightarrow \boxed{\text{B}}$

$6735 - 4502 = \square \rightarrow \boxed{\text{M}}$

$9170 - 2082 = \square \rightarrow \boxed{\text{W}}$

$4937 - 3079 = \square \rightarrow \boxed{\text{G}}$

Scratch space:

CLUE 4 Rounding

The compass signal is fuzzy because of redstone interference. We must round the distance to the nearest ten to find the right direction.

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

R									R						
7000	5000	900	2300	5000	2000	130	200	5000	7000	900	20	5000	90	2000	290
290	170	30	130	130	5000	900	30	3700	130	200	5000	90	2000	2300	2300

Round 6,620 to the nearest thousand → **R**

Round 289 to the nearest ten → **S**

Round 126 to the nearest ten → **T**

Round 3,702 to the nearest hundred → **N**

Round 168 to the nearest ten → **P**

Round 4,978 to the nearest thousand → **E**

Round 2,389 to the nearest thousand → **A**

Round 17 to the nearest ten → **Y**

Round 31 to the nearest ten → **O**

Round 855 to the nearest hundred → **D**

Round 2,287 to the nearest hundred → **L**

Round 91 to the nearest ten → **W**

Round 198 to the nearest hundred → **H**

Scratch space:

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

The village farmers want to share a harvest of golden carrots equally among their chests. Let us divide the stack to solve the 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:

$45 \div 9 = \boxed{}$

$16 \div 4 = \boxed{}$

$12 \div 6 = \boxed{}$

$22 \div 2 = \boxed{}$

$15 \div 5 = \boxed{}$

$4 \div 4 = \boxed{}$

$63 \div 7 = \boxed{}$

$70 \div 10 = \boxed{}$

$120 \div 12 = \boxed{}$

$132 \div 11 = \boxed{}$

$88 \div 11 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain teleports behind players, then commands a wolf pack.
2. The villain uses a speed hack, then glides away on elytra wings.
3. The villain uses x ray vision, then flashes shiny diamond armor.
4. The villain uses a speed hack, then runs with a tamed ocelot.
5. The villain flies through the air, then swings a netherite sword.
6. The villain uses x ray vision, then glides away on elytra wings.
7. The villain breaks blocks instantly, then runs with a tamed ocelot.
8. The villain teleports behind players, then swings a netherite sword.
9. The villain teleports behind players, then runs with a tamed ocelot.
10. The villain breaks blocks instantly, then commands a wolf pack.
11. The villain breaks blocks instantly, then flashes shiny diamond armor.
12. The villain uses a speed hack, then commands a wolf pack.

Answer Key

The Case of the Missing Golden Apple

Culprit: Dream

x ray vision · elytra wings · right handed · red leather hat · snowballs

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT COMMAND A WOLF PACK"

What is the value of the 5 in 1,583? = 500 (T) · What is the value of the 5 in 5,360? = 5000 (O) · What is the value of the 7 in 7,294? = 7000 (L) · What is the value of the 6 in 16,575? = 6000 (N) · What is the value of the 4 in 349? = 40 (I) · What is the value of the 7 in 8,274? = 70 (V) · What is the value of the 3 in 3,559? = 3000 (F) · What is the value of the 8 in 892? = 800 (K) · What is the value of the 4 in 420? = 400 (A) · What is the value of the 3 in 386? = 300 (E) · What is the value of the 4 in 24,976? = 4000 (S) · What is the value of the 8 in 8,265? = 8000 (D) · What is the value of the 2 in 9,215? = 200 (H) · What is the value of the 1 in 5,172? = 100 (W) · What is the value of the 2 in 127? = 20 (C) · What is the value of the 5 in 6,658? = 50 (P) · What is the value of the 1 in 914? = 10 (M)

Clue 2 (Addition): "THE BLOCKS WERE PLACED WITH THE RIGHT HAND"

$3809 + 3864 = 7673$ (T) · $3902 + 5992 = 9894$ (L) · $2068 + 2660 = 4728$ (C) · $5823 + 3448 = 9271$ (E) · $4638 + 3945 = 8583$ (W) · $3747 + 3240 = 6987$ (R) · $5549 + 3447 = 8996$ (H) · $2871 + 3681 = 6552$ (G) · $3585 + 3742 = 7327$ (K) · $4797 + 4574 = 9371$ (B) · $3972 + 4214 = 8186$ (N) · $3620 + 5107 = 8727$ (A) · $1613 + 2102 = 3715$ (P) · $4581 + 3753 = 8334$ (I) · $1674 + 1333 = 3007$ (O) · $1812 + 3203 = 5015$ (S) · $1436 + 1173 = 2609$ (D)

Clue 3 (Subtraction): "A BARRAGE OF SNOWBALLS WILL SLOW THEM DOWN"

$11061 - 4197 = 6864$ (A) · $8635 - 384 = 8251$ (E) · $10642 - 4772 = 5870$ (I) · $8928 - 430 = 8498$ (N) · $9616 - 1163 = 8453$ (L) · $4755 - 2525 = 2230$ (D) · $3524 - 2221 = 1303$ (O) · $10218 - 1572 = 8646$ (F) · $9021 - 4508 = 4513$ (H) · $8679 - 305 = 8374$ (S) · $8089 - 1205 = 6884$ (T) · $7645 - 2587 = 5058$ (R) · $7793 - 4332 = 3461$ (B) · $6735 - 4502 = 2233$ (M) · $9170 - 2082 = 7088$ (W) · $4937 - 3079 = 1858$ (G)

Clue 4 (Rounding): "RED LEATHER DYE WAS SPOTTED ON THE WALL"

Round 6,620 to the nearest thousand = 7000 (R) · Round 289 to the nearest ten = 290 (S) · Round 126 to the nearest ten = 130 (T) · Round 3,702 to the nearest hundred = 3700 (N) · Round 168 to the nearest ten = 170 (P) · Round 4,978 to the nearest thousand = 5000 (E) · Round 2,389 to the nearest thousand = 2000 (A) · Round 17 to the nearest ten = 20 (Y) · Round 31 to the nearest ten = 30 (O) · Round 855 to the nearest hundred = 900 (D) · Round 2,287 to the nearest hundred = 2300 (L) · Round 91 to the nearest ten = 90 (W) · Round 198 to the nearest hundred = 200 (H)

Clue 5 (Division facts (1-12)): surviving statement is box 6 → Dream

$45 \div 9 = 5$ · $16 \div 4 = 4$ · $12 \div 6 = 2$ · $22 \div 2 = 11$ · $15 \div 5 = 3$ · $4 \div 4 = 1$ · $63 \div 7 = 9$ · $70 \div 10 = 7$ · $120 \div 12 = 10$ · $132 \div 11 = 12$ · $88 \div 11 = 8$