The Mystery of the Missing Nether Star

Grade 3 math · Subtraction, Multiplication, Skip counting, Word problems, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into the Fortress chest room and stole the golden beacon. The Master Builder needs your help to decode clues, track down the culprit, and save the server!

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 Griefing Phantom is _____

Possible suspects

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

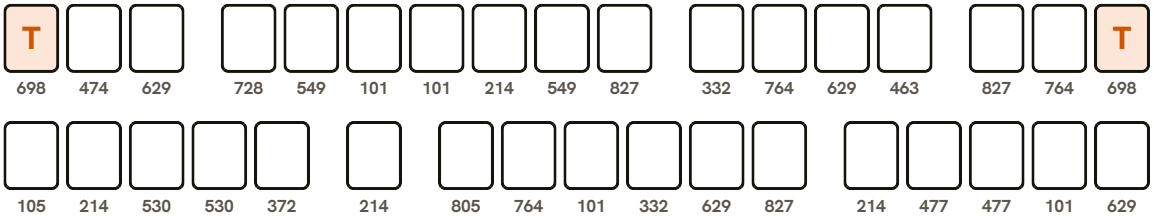
NAME	GEAR	TOOL	HABIT	HELMET COLOR	WEAKNESS
Ren	Iron Armor	Enchanted Bow	Right Handed	Obsidian Black	Lava Bucket
Alex	Diamond Armor	Golden Apple	Right Handed	Emerald Green	Lava Bucket
Sparklez	Netherite Armor	Redstone Torch	Right Handed	Emerald Green	Splash Water
Aphmau	Diamond Armor	Firework Rocket	Left Handed	Obsidian Black	Iron Golem
Zedaph	Iron Armor	Firework Rocket	Right Handed	Redstone Red	Lava Bucket
Impulse	Diamond Armor	Diamond Pickaxe	Right Handed	Redstone Red	Lava Bucket
Bdubs	Chainmail Armor	Redstone Torch	Right Handed	Redstone Red	Iron Golem
Gem	Diamond Armor	Diamond Pickaxe	Right Handed	Redstone Red	Iron Golem
Jordan	Gold Armor	Golden Apple	Right Handed	Emerald Green	Iron Golem
Tango	Diamond Armor	Golden Apple	Right Handed	Emerald Green	Iron Golem
Steve	Iron Armor	Firework Rocket	Left Handed	Redstone Red	Iron Golem
Stampy	Gold Armor	Firework Rocket	Left Handed	Redstone Red	Iron Golem
Cleo	Diamond Armor	Enchanted Bow	Right Handed	Emerald Green	Splash Water
Pearl	Chainmail Armor	Enchanted Bow	Right Handed	Obsidian Black	Lava Bucket
Techno	Chainmail Armor	Golden Apple	Left Handed	Redstone Red	Iron Golem
Skeppy	Diamond Armor	Enchanted Bow	Left Handed	Redstone Red	Iron Golem
Preston	Gold Armor	Diamond Pickaxe	Left Handed	Redstone Red	Iron Golem
Mumbo	Diamond Armor	Redstone Torch	Right Handed	Emerald Green	Iron Golem
Grian	Chainmail Armor	Enchanted Bow	Left Handed	Redstone Red	Lava Bucket
Xisuma	Diamond Armor	Diamond Pickaxe	Right Handed	Emerald Green	Splash Water
Dan	Netherite Armor	Golden Apple	Left Handed	Emerald Green	Lava Bucket

make your own at mathcrackers.com

CLUE 1 Subtraction

You count the leftover emeralds in the chest after the villain grabbed a stack to see what was stolen.

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



879 - 181 = ☐ → T

721 - 389 = ☐ → D

325 - 111 = ☐ → A

1080 - 352 = ☐ → V

694 - 65 = ☐ → E

1115 - 351 = ☐ → O

249 - 144 = ☐ → C

655 - 125 = ☐ → R

873 - 396 = ☐ → P

499 - 36 = ☐ → S

894 - 67 = ☐ → N

944 - 395 = ☐ → I

675 - 201 = ☐ → H

477 - 376 = ☐ → L

417 - 45 = ☐ → Y

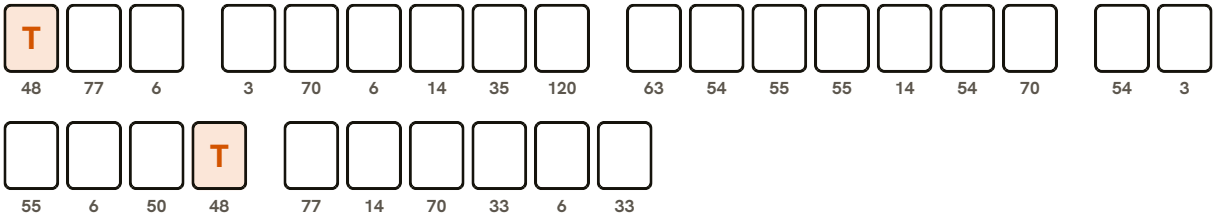
999 - 194 = ☐ → G

Scratch space:

CLUE 2 Multiplication facts (1-12)

> You inspect the rows of obsidian blocks laid down as barricades in the hallway.

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



12 × 4 = ☐ → T	7 × 10 = ☐ → N	7 × 5 = ☐ → K
7 × 9 = ☐ → V	1 × 3 = ☐ → S	11 × 3 = ☐ → D
7 × 11 = ☐ → H	3 × 2 = ☐ → E	12 × 10 = ☐ → Y
11 × 5 = ☐ → L	9 × 6 = ☐ → I	5 × 10 = ☐ → F
7 × 2 = ☐ → A		

Scratch space:

CLUE 3 Skip counting

You follow the trail of redstone dust dots across the grass blocks.

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

T																							
15	36	27	55	9	10	10	90	9	12	14	18	12	100	90	40	90	50						
26	14	60	70	90	12	9	14	60	12	22	60	10	27	70									

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, ___, 18, 21 ☐ → T

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 ☐ → F

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 ☐ → S

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 ☐ → V

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 ☐ → M

Skip-count by 3s. Fill the blank: 3, 6, 9, ___, 15, 18 ☐ → N

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, ___, 55, 60 ☐ → Y

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → R

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 ☐ → E

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 ☐ → A

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 ☐ → I

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 ☐ → L

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 ☐ → H

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, ___, 21, 24 ☐ → U

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 ☐ → G

Skip-count by 10s. Fill the blank: 10, 20, 30, ___, 50, 60 ☐ → W

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 ☐ → O

Scratch space:

CLUE 4 Word problems

The village librarian gives you a written puzzle about crafting recipe supplies.

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

A strand of

R								R			hair turned up at the scene.
27	75	46	36	65	67	59	75	27	75	46	

Builder lined up 3 rows of 9 oak logs. How many oak logs in all?

Answer: ☐ → R

There were 50 emeralds. 4 were used up. How many emeralds are left?

Answer: ☐ → D

Builder found 14 iron ingots yesterday and 53 more today. How many iron ingots in all?

Answer: ☐ → O

Builder lined up 4 rows of 9 iron ingots. How many iron ingots in all?

Answer: ☐ → S

There were 85 oak logs. 20 were used up. How many oak logs are left?

Answer: ☐ → T

Builder found 25 redstone dust yesterday and 34 more today. How many redstone dust in all?

Answer: ☐ → N

Builder found 43 emeralds yesterday and 32 more today. How many emeralds in all?

Answer: ☐ → E

Scratch space:

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

> You split the recovered lapis lazuli equally among your builder teammates.

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:

110 ÷ 10 = ☐ | 49 ÷ 7 = ☐ | 24 ÷ 3 = ☐ | 12 ÷ 6 = ☐ | 100 ÷ 10 = ☐

27 ÷ 9 = ☐ | 60 ÷ 5 = ☐ | 55 ÷ 11 = ☐ | 24 ÷ 6 = ☐ | 9 ÷ 1 = ☐

5 ÷ 5 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain equipped gold armor, then placed a redstone torch.
2. The villain equipped chainmail armor, then boosted with a firework rocket.
3. The villain equipped netherite armor, then shot an enchanted bow.
4. The villain equipped netherite armor, then boosted with a firework rocket.
5. The villain equipped iron armor, then ate a golden apple.
6. The villain equipped gold armor, then mined with a diamond pickaxe.
7. The villain equipped diamond armor, then shot an enchanted bow.
8. The villain equipped iron armor, then boosted with a firework rocket.
9. The villain equipped diamond armor, then ate a golden apple.
10. The villain equipped netherite armor, then placed a redstone torch.
11. The villain equipped gold armor, then boosted with a firework rocket.
12. The villain equipped netherite armor, then mined with a diamond pickaxe.

TEACHER / PARENT

Answer Key

The Mystery of the Missing Nether Star

Culprit: Preston

Gold Armor · Diamond Pickaxe · Left Handed · Redstone Red · Iron Golem

Trail: Start 21 → Clue 1 16 → Clue 2 6 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE VILLAIN DOES NOT CARRY A GOLDEN APPLE"

879 - 181 = 698 (T) · 721 - 389 = 332 (D) · 325 - 111 = 214 (A) · 1080 - 352 = 728 (V) · 694 - 65 = 629 (E) · 1115 - 351 = 764 (O) · 249 - 144 = 105 (C) · 655 - 125 = 530 (R) · 873 - 396 = 477 (P) · 499 - 36 = 463 (S) · 894 - 67 = 827 (N) · 944 - 395 = 549 (I) · 675 - 201 = 474 (H) · 477 - 376 = 101 (L) · 417 - 45 = 372 (Y) · 999 - 194 = 805 (G)

Clue 2 (Multiplication facts (1-12)): "THE SNEAKY VILLAIN IS LEFT HANDED"

12 × 4 = 48 (T) · 7 × 10 = 70 (N) · 7 × 5 = 35 (K) · 7 × 9 = 63 (V) · 1 × 3 = 3 (S) · 11 × 3 = 33 (D) · 7 × 11 = 77 (H) · 3 × 2 = 6 (E) · 12 × 10 = 120 (Y) · 11 × 5 = 55 (L) · 9 × 6 = 54 (I) · 5 × 10 = 50 (F) · 7 × 2 = 14 (A)

Clue 3 (Skip counting): "THE VILLAIN RUNS AWAY FROM AN IRON GOLEM"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, ___, 18, 21 = 15 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (F) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (V) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 = 70 (M) · Skip-count by 3s. Fill the blank: 3, 6, 9, ___, 15, 18 = 12 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, ___, 55, 60 = 50 (Y) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 = 90 (A) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, ___, 21, 24 = 18 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 = 22 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, ___, 50, 60 = 40 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 = 60 (O)

Clue 4 (Word problems): "REDSTONE RED"

Builder lined up 3 rows of 9 oak logs. How many oak logs in all? = 27 (R) · There were 50 emeralds. 4 were used up. How many emeralds are left? = 46 (D) · Builder found 14 iron ingots yesterday and 53 more today. How many iron ingots in all? = 67 (O) · Builder lined up 4 rows of 9 iron ingots. How many iron ingots in all? = 36 (S) · There were 85 oak logs. 20 were used up. How many oak logs are left? = 65 (T) · Builder found 25 redstone dust yesterday and 34 more today. How many redstone dust in all? = 59 (N) · Builder found 43 emeralds yesterday and 32 more today. How many emeralds in all? = 75 (E)

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

110 ÷ 10 = 11 · 49 ÷ 7 = 7 · 24 ÷ 3 = 8 · 12 ÷ 6 = 2 · 100 ÷ 10 = 10 · 27 ÷ 9 = 3 · 60 ÷ 5 = 12 · 55 ÷ 11 = 5 · 24 ÷ 6 = 4 · 9 ÷ 1 = 9 · 5 ÷ 5 = 1