



# The Mystery of the Broken Diamond Castle

Grade 1 math · Addition, Subtraction, Skip counting, Place value, Missing addends · Reading level grades 1-2

**Detective:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Oh no! A sneaky player has grieved the Server Host's giant diamond castle! They knocked down walls and stole the Golden Apple. We need to find the culprit!

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 Mob 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   | SPAWNED PET   | ACTIVE HAND  | HELMET TYPE | FEAR             |
|----------|-----------------|---------------|--------------|-------------|------------------|
| Alex     | Stone Hoe       | Friendly Bee  | Right Handed | Leather Cap | Deep Lava        |
| Aphmau   | Netherite Axe   | Friendly Bee  | Right Handed | Leather Cap | Water Buckets    |
| Mumbo    | Diamond Pickaxe | Green Creeper | Right Handed | Leather Cap | Water Buckets    |
| Skeppy   | Stone Hoe       | Baby Zombie   | Left Handed  | Iron Helmet | Deep Lava        |
| Jerome   | Golden Shovel   | Cute Ocelot   | Right Handed | Leather Cap | Hissing Creepers |
| Sparklez | Diamond Pickaxe | Cute Ocelot   | Right Handed | Leather Cap | Water Buckets    |
| Tommy    | Iron Sword      | Green Creeper | Right Handed | Iron Helmet | Hissing Creepers |
| Wilbur   | Netherite Axe   | Cute Ocelot   | Right Handed | Leather Cap | Water Buckets    |
| BadBoy   | Iron Sword      | Friendly Bee  | Right Handed | Iron Helmet | Deep Lava        |
| George   | Stone Hoe       | Green Creeper | Right Handed | Iron Helmet | Hissing Creepers |
| Steve    | Stone Hoe       | Baby Zombie   | Left Handed  | Leather Cap | Water Buckets    |
| AntVenom | Golden Shovel   | Baby Zombie   | Right Handed | Leather Cap | Water Buckets    |
| Preston  | Stone Hoe       | Tamed Wolf    | Right Handed | Gold Crown  | Deep Lava        |
| Tubbo    | Golden Shovel   | Friendly Bee  | Left Handed  | Gold Crown  | Water Buckets    |
| Techno   | Iron Sword      | Tamed Wolf    | Left Handed  | Iron Helmet | Deep Lava        |
| Ssundee  | Netherite Axe   | Baby Zombie   | Left Handed  | Leather Cap | Hissing Creepers |
| Dream    | Stone Hoe       | Tamed Wolf    | Left Handed  | Leather Cap | Water Buckets    |
| Stampy   | Iron Sword      | Cute Ocelot   | Right Handed | Gold Crown  | Water Buckets    |
| Bajan    | Netherite Axe   | Baby Zombie   | Right Handed | Gold Crown  | Water Buckets    |
| Unspeak  | Golden Shovel   | Friendly Bee  | Right Handed | Gold Crown  | Hissing Creepers |
| LDShadow | Diamond Pickaxe | Baby Zombie   | Left Handed  | Leather Cap | Hissing Creepers |

**CLUE 1 Addition**

We found some redstone dust on the ground. Let us add the red piles and blue piles to find the first clue.

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

|              |    |   |   |    |   |    |   |              |    |    |    |   |    |    |    |   |   |    |
|--------------|----|---|---|----|---|----|---|--------------|----|----|----|---|----|----|----|---|---|----|
| <div>T</div> |    |   |   |    |   |    |   | <div>T</div> |    |    |    |   |    |    |    |   |   |    |
| 8            | 10 | 6 | 3 | 14 | 4 | 12 | 4 | 8            | 10 | 13 | 20 | 6 | 13 | 11 | 18 | 6 | 6 | 12 |

|   |    |   |   |    |   |    |    |   |              |
|---|----|---|---|----|---|----|----|---|--------------|
|   |    |   |   |    |   |    |    |   | <div>T</div> |
| 2 | 18 | 6 | 6 | 17 | 6 | 18 | 17 | 6 | 8            |

|                                         |                                         |                                         |                                        |
|-----------------------------------------|-----------------------------------------|-----------------------------------------|----------------------------------------|
| $4 + 4 = \square \rightarrow \text{T}$  | $8 + 10 = \square \rightarrow \text{R}$ | $2 + 2 = \square \rightarrow \text{O}$  |                                        |
| $10 + 7 = \square \rightarrow \text{P}$ | $2 + 1 = \square \rightarrow \text{Y}$  | $5 + 5 = \square \rightarrow \text{H}$  | $5 + 1 = \square \rightarrow \text{E}$ |
| $9 + 3 = \square \rightarrow \text{N}$  | $7 + 6 = \square \rightarrow \text{A}$  | $13 + 7 = \square \rightarrow \text{V}$ | $1 + 1 = \square \rightarrow \text{C}$ |
| $5 + 9 = \square \rightarrow \text{D}$  | $6 + 5 = \square \rightarrow \text{G}$  |                                         |                                        |

Scratch space:

## Subtraction

The villain broke some glass blocks in the castle. Subtract the broken blocks from the total to get the next clue.

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

$$19 - 1 = \boxed{\phantom{00}} \rightarrow \boxed{\text{T}}$$

$12 - 3 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{B}}$

$14 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{W}}$

$12 - 7 = \boxed{\phantom{00}} \rightarrow \boxed{\text{E}}$

$13 - 6 = \boxed{\phantom{00}} \rightarrow \boxed{\text{A}}$

$12 - 4 = \square \rightarrow \mathbf{G}$

$8 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{D}}$

$5 - 3 = \square \rightarrow \boxed{\text{L}}$

$9 - 6 = \square \rightarrow \boxed{\text{C}}$

$12 - 8 = \boxed{\phantom{0}} \rightarrow \boxed{0}$

$17 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{R}}$

$2 - 1 = \boxed{\phantom{00}} \rightarrow \boxed{1}$

$19 - 3 = \square \rightarrow \boxed{\mathbf{N}}$

$19 - 2 = \boxed{\phantom{00}} \rightarrow \boxed{\text{S}}$

20 - 1 =  → **Y**

$14 - 3 = \boxed{\phantom{00}} \rightarrow \boxed{\text{K}}$

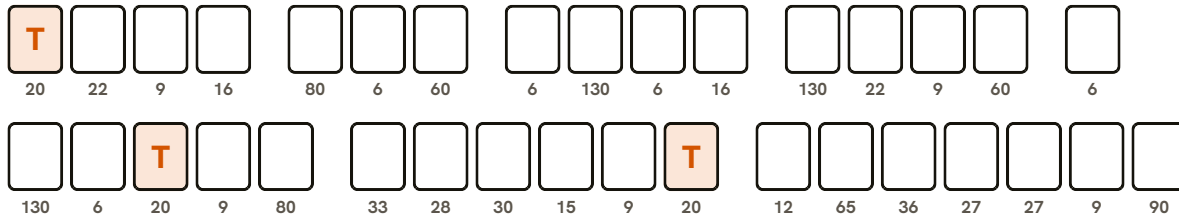
$$11 - 1 = \boxed{\phantom{00}} \rightarrow \boxed{\text{H}}$$

Scratch space:

### CLUE 3 Skip counting

Look at these torch paths! If we skip count the torches by twos, we will find where the villain went.

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



Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, \_\_, 22, 24  → **T**

Skip-count by 5s. Fill the blank: 5, 10, \_\_, 20, 25  → **K**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, \_\_, 30, 33  → **L**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, \_\_, 36, 39  → **B**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, \_\_, 100, 110  → **D**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, \_\_, 39, 42  → **I**

Skip-count by 3s. Fill the blank: 3, 6, \_\_, 12, 15  → **E**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, \_\_, 24, 26  → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, \_\_, 30, 32  → **U**

Skip-count by 2s. Fill the blank: 2, 4, \_\_, 8, 10  → **A**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, \_\_, 18, 20  → **Y**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, \_\_, 14, 16  → **S**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, \_\_, 70, 75  → **P**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, \_\_, 140, 150  → **W**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, \_\_, 70, 80  → **N**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, \_\_, 90, 100  → **R**

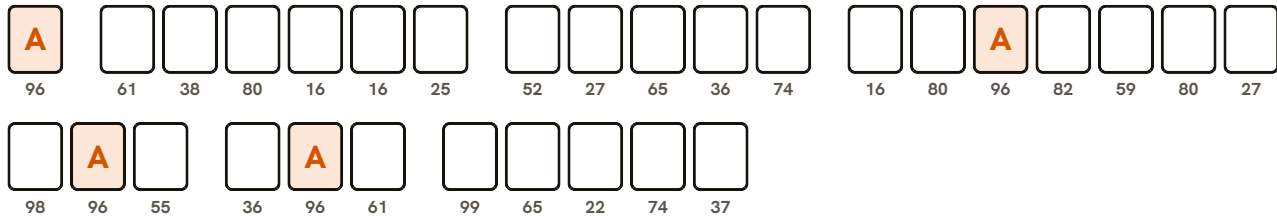
Skip-count by 10s. Fill the blank: 10, 20, \_\_, 40, 50  → **C**

Scratch space:

# CLUE 4 Place value

There is a chest of cobblestone. Count the big stacks of ten and single blocks to reveal the next hint.

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



What number has 9 tens and 6 ones?  → **A**

What number has 9 tens and 8 ones?  → **C**

What number has 1 ten and 6 ones?  → **L**

What number has 9 tens and 9 ones?  → **F**

What number has 2 tens and 7 ones?  → **R**

What number has 6 tens and 1 one?  → **S**

What number has 5 tens and 5 ones?  → **P**

What number has 5 tens and 2 ones?  → **B**

What number has 8 tens and 0 ones?  → **E**

What number has 2 tens and 2 ones?  → **U**

What number has 5 tens and 9 ones?  → **H**

What number has 6 tens and 5 ones?  → **O**

What number has 3 tens and 7 ones?  → **D**

What number has 2 tens and 5 ones?  → **Y**

What number has 3 tens and 8 ones?  → **M**

What number has 7 tens and 4 ones?  → **N**

What number has 8 tens and 2 ones?  → **T**

What number has 3 tens and 6 ones?  → **W**

Scratch space:

**CLUE 5****Missing addends - the last clue**

To open this secret door, we need some more iron bars. How many more do we need to make ten? Find that number for the last 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:**

$6 + \underline{\quad} = 11$

$6 + \underline{\quad} = 18$

$5 + \underline{\quad} = 7$

$4 + \underline{\quad} = 7$

$8 + \underline{\quad} = 9$

$1 + \underline{\quad} = 9$

$1 + \underline{\quad} = 11$

$2 + \underline{\quad} = 13$

$8 + \underline{\quad} = 17$

$8 + \underline{\quad} = 12$

$8 + \underline{\quad} = 15$

**Step 2 - cross out the sentence with each answer:**

1. The villain slashed an iron sword, then fed a cute ocelot.
2. The villain chopped with a netherite axe, then fed a cute ocelot.
3. The villain slashed an iron sword, then ran past a green creeper.
4. The villain slashed an iron sword, then buzzed with a friendly bee.
5. The villain swung a shiny diamond pickaxe, then fed a cute ocelot.
6. The villain chopped with a netherite axe, then buzzed with a friendly bee.
7. The villain swung a shiny diamond pickaxe, then ran past a green creeper.
8. The villain scraped a stone hoe, then summoned a baby zombie.
9. The villain swung a shiny diamond pickaxe, then called a tamed wolf.
10. The villain chopped with a netherite axe, then called a tamed wolf.
11. The villain scraped a stone hoe, then fed a cute ocelot.
12. The villain dug with a golden shovel, then summoned a baby zombie.

# Answer Key

## The Mystery of the Broken Diamond Castle

### Culprit: Aphmau

Netherite Axe · Friendly Bee · Right Handed · Leather Cap · Water Buckets

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

#### Clue 1 (Addition): "THEY DO NOT HAVE A GREEN CREEPER PET"

$4 + 4 = 8$  (T) ·  $8 + 10 = 18$  (R) ·  $2 + 2 = 4$  (O) ·  $10 + 7 = 17$  (P) ·  $2 + 1 = 3$  (Y) ·  $5 + 5 = 10$  (H) ·  $5 + 1 = 6$  (E) ·  $9 + 3 = 12$  (N) ·  $7 + 6 = 13$  (A) ·  $13 + 7 = 20$  (V) ·  $1 + 1 = 2$  (C) ·  $5 + 9 = 14$  (D) ·  $6 + 5 = 11$  (G)

#### Clue 2 (Subtraction): "THEY BLOCKED BLOWS WITH THEIR RIGHT HAND"

$19 - 1 = 18$  (T) ·  $12 - 3 = 9$  (B) ·  $14 - 2 = 12$  (W) ·  $12 - 7 = 5$  (E) ·  $13 - 6 = 7$  (A) ·  $12 - 4 = 8$  (G) ·  $8 - 2 = 6$  (D) ·  $5 - 3 = 2$  (L) ·  $9 - 6 = 3$  (C) ·  $12 - 8 = 4$  (O) ·  $17 - 2 = 15$  (R) ·  $2 - 1 = 1$  (I) ·  $19 - 3 = 16$  (N) ·  $19 - 2 = 17$  (S) ·  $20 - 1 = 19$  (Y) ·  $14 - 3 = 11$  (K) ·  $11 - 1 = 10$  (H)

#### Clue 3 (Skip counting): "THEY RAN AWAY WHEN A WATER BUCKET SPILLED"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, \_\_, 22, 24 = 20 (T) · Skip-count by 5s. Fill the blank: 5, 10, \_\_, 20, 25 = 15 (K) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, \_\_, 30, 33 = 27 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, \_\_, 36, 39 = 33 (B) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, \_\_, 100, 110 = 90 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, \_\_, 39, 42 = 36 (I) · Skip-count by 3s. Fill the blank: 3, 6, \_\_, 12, 15 = 9 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, \_\_, 24, 26 = 22 (H) · Skip-count by 2s. Fill the blank: 2, 4, \_\_, 8, 10 = 6 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, \_\_, 18, 20 = 16 (Y) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, \_\_, 14, 16 = 12 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, \_\_, 70, 75 = 65 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, \_\_, 140, 150 = 130 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, \_\_, 70, 80 = 60 (N) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, \_\_, 90, 100 = 80 (R) · Skip-count by 10s. Fill the blank: 10, 20, \_\_, 40, 50 = 30 (C)

#### Clue 4 (Place value): "A SMELLY BROWN LEATHER CAP WAS FOUND"

What number has 9 tens and 6 ones? = 96 (A) · What number has 9 tens and 8 ones? = 98 (C) · What number has 1 ten and 6 ones? = 16 (L) · What number has 9 tens and 9 ones? = 99 (F) · What number has 2 tens and 7 ones? = 27 (R) · What number has 6 tens and 1 one? = 61 (S) · What number has 5 tens and 5 ones? = 55 (P) · What number has 5 tens and 2 ones? = 52 (B) · What number has 8 tens and 0 ones? = 80 (E) · What number has 2 tens and 2 ones? = 22 (U) · What number has 5 tens and 9 ones? = 59 (H) · What number has 6 tens and 5 ones? = 65 (O) · What number has 3 tens and 7 ones? = 37 (D) · What number has 2 tens and 5 ones? = 25 (Y) · What number has 3 tens and 8 ones? = 38 (M) · What number has 7 tens and 4 ones? = 74 (N) · What number has 8 tens and 2 ones? = 82 (T) · What number has 3 tens and 6 ones? = 36 (W)

#### Clue 5 (Missing addends): surviving statement is box 6 → Aphmau

$6 + \underline{\quad} = 11 = 5$  ·  $6 + \underline{\quad} = 18 = 12$  ·  $5 + \underline{\quad} = 7 = 2$  ·  $4 + \underline{\quad} = 7 = 3$  ·  $8 + \underline{\quad} = 9 = 1$  ·  $1 + \underline{\quad} = 9 = 8$  ·  $1 + \underline{\quad} = 11 = 10$  ·  $2 + \underline{\quad} = 13 = 11$  ·  $8 + \underline{\quad} = 17 = 9$  ·  $8 + \underline{\quad} = 12 = 4$  ·  $8 + \underline{\quad} = 15 = 7$