The Mystery of the Missing Diamond Block

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

Detective: _____ **Date:** _____

Someone snuck into the craft hall and took the shiny Diamond Block! Solve the math clues to help Master Builder Alex find the sneaky 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.

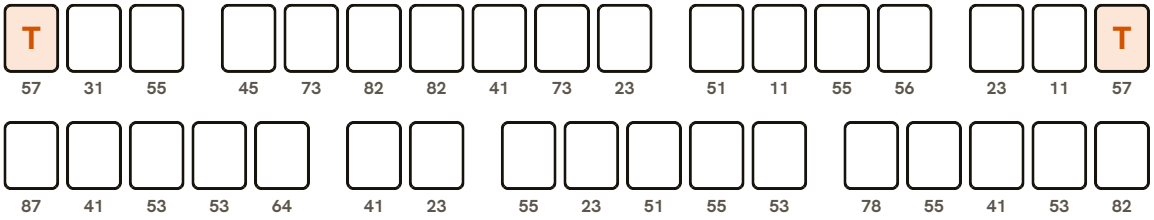
NAME	MAIN TOOL	CHEST LOOT	GRIP STYLE	HELMET TYPE	FEAR
Zoe	Golden Shovel	Slime Block	Left-handed	Turtle Shell	Lit TNT
Dan	Golden Shovel	Glowstone Dust	Left-handed	Iron Helmet	Tamed Wolf
Emma	Netherite Hoe	Slime Block	Left-handed	Iron Helmet	Lit TNT
Zack	Netherite Hoe	Redstone Dust	Left-handed	Iron Helmet	Lit TNT
Ruby	Golden Shovel	Glowstone Dust	Right-handed	Leather Cap	Splash Potion
Owen	Golden Shovel	Ender Pearl	Left-handed	Iron Helmet	Lit TNT
Nora	Golden Shovel	Ender Pearl	Right-handed	Leather Cap	Lit TNT
Squid	Wooden Sword	Redstone Dust	Right-handed	Turtle Shell	Tamed Wolf
Mia	Netherite Hoe	Glowstone Dust	Right-handed	Iron Helmet	Tamed Wolf
Eli	Golden Shovel	Glowstone Dust	Right-handed	Turtle Shell	Tamed Wolf
Corey	Iron Axe	Redstone Dust	Left-handed	Iron Helmet	Lit TNT
Jack	Diamond Pickaxe	Slime Block	Right-handed	Leather Cap	Tamed Wolf
Finn	Golden Shovel	Golden Apple	Left-handed	Leather Cap	Lit TNT
Leo	Golden Shovel	Redstone Dust	Right-handed	Turtle Shell	Lit TNT
Stampy	Diamond Pickaxe	Ender Pearl	Right-handed	Leather Cap	Splash Potion
Chloe	Netherite Hoe	Redstone Dust	Right-handed	Iron Helmet	Lit TNT
Liam	Netherite Hoe	Slime Block	Right-handed	Turtle Shell	Lit TNT
Lucas	Wooden Sword	Slime Block	Left-handed	Leather Cap	Lit TNT
Steve	Iron Axe	Golden Apple	Right-handed	Turtle Shell	Splash Potion
Sammy	Diamond Pickaxe	Slime Block	Left-handed	Iron Helmet	Lit TNT
Alex	Netherite Hoe	Redstone Dust	Left-handed	Iron Helmet	Splash Potion

make your own at mathcrackers.com

CLUE 1 Subtraction

> You take away broken minecarts from the track to solve this clue.

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



90 - 33 = ☐ → T

71 - 40 = ☐ → H

50 - 9 = ☐ → A

68 - 13 = ☐ → E

66 - 13 = ☐ → R

109 - 31 = ☐ → P

96 - 9 = ☐ → C

35 - 24 = ☐ → O

58 - 2 = ☐ → S

97 - 15 = ☐ → L

64 - 19 = ☐ → V

29 - 6 = ☐ → N

89 - 25 = ☐ → Y

80 - 29 = ☐ → D

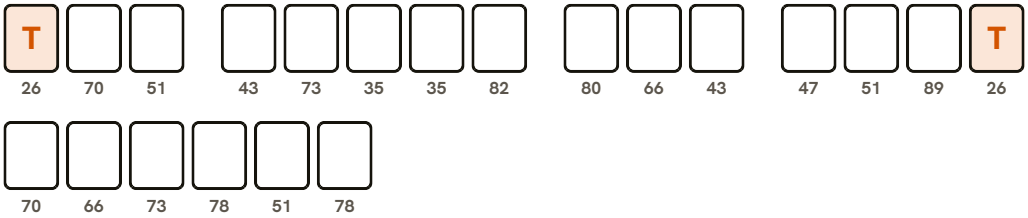
86 - 13 = ☐ → I

Scratch space:

CLUE 2 Addition

You add up two stacks of cobblestone to uncover this clue.

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



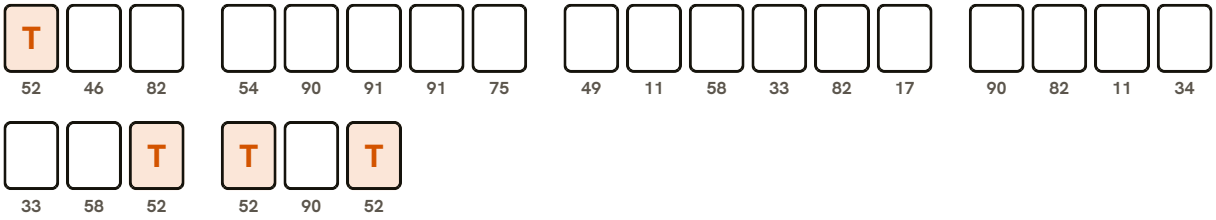
14 + 12 = ☐ → T	32 + 48 = ☐ → W	17 + 18 = ☐ → O
28 + 23 = ☐ → E	26 + 17 = ☐ → S	51 + 27 = ☐ → D
42 + 31 = ☐ → N	57 + 25 = ☐ → P	46 + 24 = ☐ → H
17 + 30 = ☐ → L	28 + 38 = ☐ → A	48 + 41 = ☐ → F

Scratch space:

CLUE 3 Place value

You read the tens and ones on the chest lock to crack this clue.

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



What number has 5 tens and 2 ones? ☐ → T

What number has 5 tens and 4 ones? ☐ → S

What number has 9 tens and 1 one? ☐ → O

What number has 1 ten and 1 one? ☐ → A

What number has 4 tens and 6 ones? ☐ → H

What number has 1 ten and 7 ones? ☐ → D

What number has 3 tens and 4 ones? ☐ → R

What number has 7 tens and 5 ones? ☐ → P

What number has 8 tens and 2 ones? ☐ → E

What number has 9 tens and 0 ones? ☐ → N

What number has 3 tens and 3 ones? ☐ → L

What number has 5 tens and 8 ones? ☐ → I

What number has 4 tens and 9 ones? ☐ → F

Scratch space:

CLUE 4 Skip counting

You count rail tracks by fives across the ravine to find this clue.

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

T							T																							
28	25	39	21	80	130	36	28	45	24	20	39	30	9	24	120	120	39	30	10	20	130	9	24	20	25	39	36	22	39	28

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

Skip-count by 5s. Fill the blank: 5, 10, 15, ___, 25, 30 ☐ → **N**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 ☐ → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ___, 26, 28 ☐ → **O**

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 ☐ → **P**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → **U**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 ☐ → **Y**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 ☐ → **G**

Skip-count by 10s. Fill the blank: 10, 20, ___, 40, 50 ☐ → **D**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 ☐ → **E**

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

Scratch space:

CLUE 5 Missing addends - the last clue

You find the missing number of iron bars needed for the cage to solve this 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 + ___ = 16 ☐	8 + ___ = 15 ☐	4 + ___ = 12 ☐	2 + ___ = 11 ☐
5 + ___ = 11 ☐	10 + ___ = 14 ☐	8 + ___ = 19 ☐	8 + ___ = 13 ☐
6 + ___ = 7 ☐	3 + ___ = 6 ☐	5 + ___ = 17 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain tilled with a netherite hoe, then threw an ender pearl.
2. The villain tilled with a netherite hoe, then dropped redstone dust.
3. The villain tilled with a netherite hoe, then scattered glowstone dust.
4. The villain swung a diamond pickaxe, then ate a golden apple.
5. The villain swung a wooden sword, then dropped redstone dust.
6. The villain swung a wooden sword, then ate a golden apple.
7. The villain tilled with a netherite hoe, then bounced on a slime block.
8. The villain chopped with an iron axe, then dropped redstone dust.
9. The villain chopped with an iron axe, then bounced on a slime block.
10. The villain swung a diamond pickaxe, then bounced on a slime block.
11. The villain swung a diamond pickaxe, then scattered glowstone dust.
12. The villain swung a diamond pickaxe, then threw an ender pearl.

TEACHER / PARENT

Answer Key

The Mystery of the Missing Diamond Block

Culprit: Zack

Netherite Hoe · Redstone Dust · Left-handed · Iron Helmet · Lit TNT

Trail: Start 21 → Clue 1 18 → Clue 2 9 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE VILLAIN DOES NOT CARRY AN ENDER PEARL"

90 - 33 = 57 (T) · 71 - 40 = 31 (H) · 50 - 9 = 41 (A) · 68 - 13 = 55 (E) · 66 - 13 = 53 (R) · 109 - 31 = 78 (P) · 96 - 9 = 87 (C) · 35 - 24 = 11 (O) · 58 - 2 = 56 (S) · 97 - 15 = 82 (L) · 64 - 19 = 45 (V) · 29 - 6 = 23 (N) · 89 - 25 = 64 (Y) · 80 - 29 = 51 (D) · 86 - 13 = 73 (I)

Clue 2 (Addition): "THE SNOOP WAS LEFT HANDED"

14 + 12 = 26 (T) · 32 + 48 = 80 (W) · 17 + 18 = 35 (O) · 28 + 23 = 51 (E) · 26 + 17 = 43 (S) · 51 + 27 = 78 (D) · 42 + 31 = 73 (N) · 57 + 25 = 82 (P) · 46 + 24 = 70 (H) · 17 + 30 = 47 (L) · 28 + 38 = 66 (A) · 48 + 41 = 89 (F)

Clue 3 (Place value): "THE SNOOP FAILED NEAR LIT TNT"

What number has 5 tens and 2 ones? = 52 (T) · What number has 5 tens and 4 ones? = 54 (S) · What number has 9 tens and 1 one? = 91 (O) · What number has 1 ten and 1 one? = 11 (A) · What number has 4 tens and 6 ones? = 46 (H) · What number has 1 ten and 7 ones? = 17 (D) · What number has 3 tens and 4 ones? = 34 (R) · What number has 7 tens and 5 ones? = 75 (P) · What number has 8 tens and 2 ones? = 82 (E) · What number has 9 tens and 0 ones? = 90 (N) · What number has 3 tens and 3 ones? = 33 (L) · What number has 5 tens and 8 ones? = 58 (I) · What number has 4 tens and 9 ones? = 49 (F)

Clue 4 (Skip counting): "THE GUILTY ONE DROPPED AN IRON HELMET"

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, ___, 25, 30 = 20 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (L) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 = 25 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ___, 26, 28 = 24 (O) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 = 120 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (U) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (Y) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 = 21 (G) · Skip-count by 10s. Fill the blank: 10, 20, ___, 40, 50 = 30 (D) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 = 39 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 = 22 (M)

Clue 5 (Missing addends): surviving statement is box 2 → Zack

6 + ___ = 16 = 10 · 8 + ___ = 15 = 7 · 4 + ___ = 12 = 8 · 2 + ___ = 11 = 9 · 5 + ___ = 11 = 6 · 10 + ___ = 14 = 4 · 8 + ___ = 19 = 11 · 8 + ___ = 13 = 5 · 6 + ___ = 7 = 1 · 3 + ___ = 6 = 3 · 5 + ___ = 17 = 12