The Block Castle Mystery

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

Detective: _____ **Date:** _____

Someone wrecked the giant diamond tower at Pixel Peak Kingdom! The Master Builder needs your help to find the sneaky griefing trapper before more builds are ruined.

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 Trapper is _____

Possible suspects

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

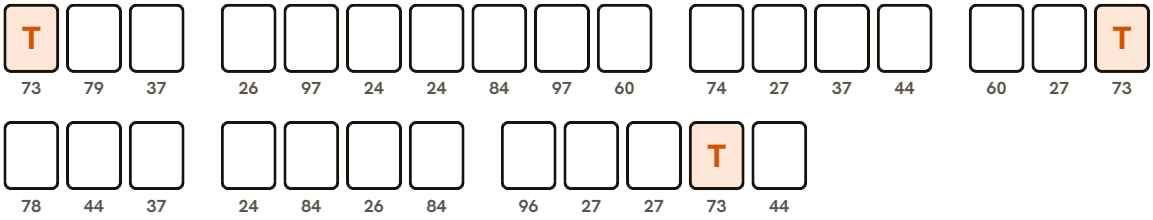
NAME	MINING SKILL	SPECIAL GEAR	DOMINANT HAND	PIXEL HAIR	TRAPPING FOIL
Nico Nether	Redstone Wiring	Glow Glasses	Left Handed	Curly Pixels	Bright Flash
Steve Block	Torch Lighting	Water Helmet	Left Handed	Curly Pixels	Loud Bell
Cody Craft	Speed Crafting	Glow Glasses	Left Handed	Curly Pixels	Loud Bell
Timmy Torch	Redstone Wiring	Water Helmet	Right Handed	Blocky Flat	Loud Bell
Miner Max	Redstone Wiring	Glider Wings	Right Handed	Curly Pixels	Loud Bell
Noah Node	Redstone Wiring	Lava Boots	Left Handed	Curly Pixels	Loud Bell
Zack Zone	Speed Crafting	Glider Wings	Left Handed	Spiky Pixels	Bright Flash
Tess Tile	Redstone Wiring	Glow Glasses	Left Handed	Blocky Flat	Water Bucket
Crafty Carl	Redstone Wiring	Lava Boots	Left Handed	Curly Pixels	Bright Flash
Ruby Redstone	Pickaxe Mining	Glow Glasses	Left Handed	Spiky Pixels	Bright Flash
Builder Bob	Pickaxe Mining	Lava Boots	Left Handed	Curly Pixels	Bright Flash
Vera Vault	Speed Crafting	Glider Wings	Left Handed	Curly Pixels	Loud Bell
Sammy Slab	Speed Crafting	Lava Boots	Left Handed	Blocky Flat	Bright Flash
Maya Miner	Pickaxe Mining	Glow Glasses	Right Handed	Spiky Pixels	Water Bucket
Alex Stone	Speed Crafting	Glow Glasses	Right Handed	Blocky Flat	Water Bucket
Piper Peak	Pickaxe Mining	Ender Pearl	Left Handed	Curly Pixels	Water Bucket
Leo Lapis	Pickaxe Mining	Ender Pearl	Left Handed	Curly Pixels	Loud Bell
Pixel Penny	Speed Crafting	Lava Boots	Right Handed	Curly Pixels	Water Bucket
Ollie Ore	Speed Crafting	Glider Wings	Left Handed	Spiky Pixels	Loud Bell
Danny Diggs	Torch Lighting	Glider Wings	Right Handed	Curly Pixels	Loud Bell
Bella Brick	Torch Lighting	Water Helmet	Right Handed	Blocky Flat	Loud Bell

make your own at mathcrackers.com

CLUE 1 Addition

We count up all the iron blocks found at the scene to uncover a secret clue.

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



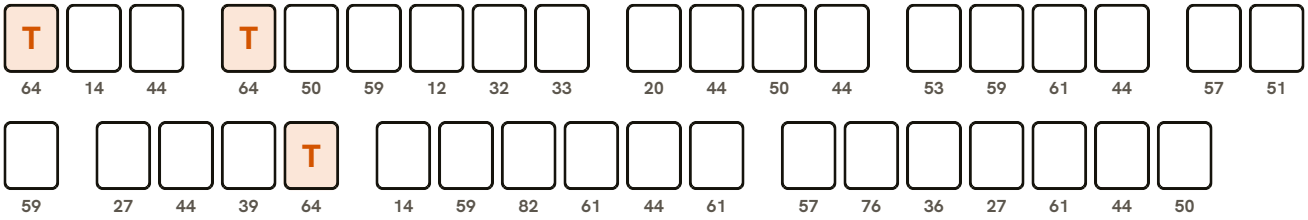
40 + 33 = ☐ → T	65 + 32 = ☐ → I	42 + 54 = ☐ → B
20 + 17 = ☐ → E	51 + 23 = ☐ → D	16 + 8 = ☐ → L
37 + 23 = ☐ → N	10 + 17 = ☐ → O	28 + 50 = ☐ → U
23 + 56 = ☐ → H	14 + 12 = ☐ → V	30 + 54 = ☐ → A
22 + 22 = ☐ → S		

Scratch space:

CLUE 2 Subtraction

Some shiny diamonds went missing from the chest so we calculate how many were taken.

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



92 - 28 = ☐ → T

89 - 13 = ☐ → U

51 - 1 = ☐ → R

58 - 22 = ☐ → I

41 - 21 = ☐ → W

63 - 6 = ☐ → B

75 - 22 = ☐ → M

87 - 5 = ☐ → N

66 - 15 = ☐ → Y

25 - 13 = ☐ → C

35 - 2 = ☐ → S

45 - 31 = ☐ → H

93 - 34 = ☐ → A

73 - 12 = ☐ → D

59 - 27 = ☐ → K

60 - 16 = ☐ → E

52 - 13 = ☐ → F

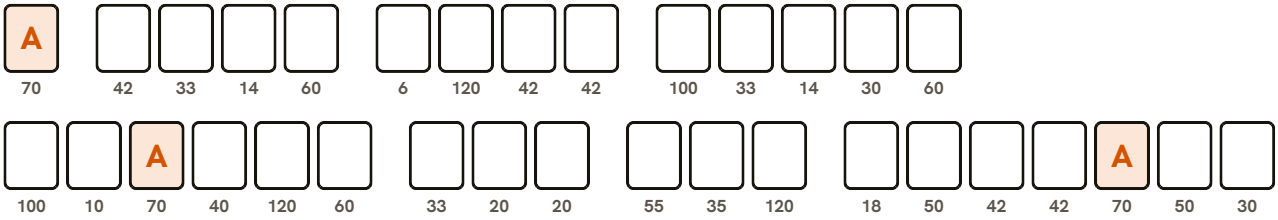
47 - 20 = ☐ → L

Scratch space:

CLUE 3 Skip counting

We count rows of redstone torches by twos to unlock the hidden door.

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



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

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → **B**

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

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 ☐ → **R**

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 ☐ → **H**

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, ___, 35, 40 ☐ → **N**

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

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

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

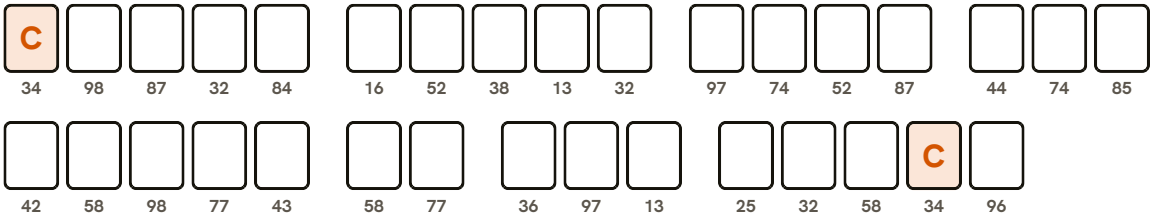
Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 ☐ → **L**

Scratch space:

CLUE 4 Place value

The vault lock shows tens and ones made of lapis blocks.

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



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

What number has 3 tens and 2 ones? ☐ → L

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

What number has 1 ten and 3 ones? ☐ → E

What number has 9 tens and 6 ones? ☐ → K

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

What number has 3 tens and 8 ones? ☐ → X

What number has 1 ten and 6 ones? ☐ → P

What number has 7 tens and 7 ones? ☐ → N

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

What number has 4 tens and 2 ones? ☐ → F

What number has 9 tens and 7 ones? ☐ → H

What number has 7 tens and 4 ones? ☐ → A

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

What number has 8 tens and 4 ones? ☐ → Y

What number has 4 tens and 4 ones? ☐ → W

What number has 8 tens and 7 ones? ☐ → R

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

What number has 9 tens and 8 ones? ☐ → U

What number has 3 tens and 6 ones? ☐ → T

Scratch space:

CLUE 5 Missing addends - the last clue

We figure out how many extra emeralds are needed to finish repairing the wall.

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:

7 + ___ = 17 ☐	6 + ___ = 17 ☐	10 + ___ = 18 ☐	8 + ___ = 10 ☐
1 + ___ = 6 ☐	6 + ___ = 13 ☐	4 + ___ = 5 ☐	7 + ___ = 13 ☐
10 + ___ = 19 ☐	2 + ___ = 6 ☐	7 + ___ = 10 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain stacked iron blocks, then glided with wings.
2. The villain lit coal torches, then tossed ender pearls.
3. The villain lit coal torches, then walked on lava.
4. The villain crafted wooden chests, then walked on lava.
5. The villain stacked iron blocks, then swam underwater.
6. The villain mined deep ores, then glided with wings.
7. The villain crafted wooden chests, then swam underwater.
8. The villain lit coal torches, then swam underwater.
9. The villain mined deep ores, then walked on lava.
10. The villain crafted wooden chests, then glided with wings.
11. The villain mined deep ores, then tossed ender pearls.
12. The villain crafted wooden chests, then wore glow glasses.

TEACHER / PARENT

Answer Key

The Block Castle Mystery

Culprit: Cody Craft

Speed Crafting · Glow Glasses · Left Handed · Curly Pixels · Loud Bell

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT USE LAVA BOOTS"

40 + 33 = 73 (T) · 65 + 32 = 97 (I) · 42 + 54 = 96 (B) · 20 + 17 = 37 (E) · 51 + 23 = 74 (D) · 16 + 8 = 24 (L) · 37 + 23 = 60 (N) · 10 + 17 = 27 (O) · 28 + 50 = 78 (U) · 23 + 56 = 79 (H) · 14 + 12 = 26 (V) · 30 + 54 = 84 (A) · 22 + 22 = 44 (S)

Clue 2 (Subtraction): "THE TRACKS WERE MADE BY A LEFT HANDED BUILDER"

92 - 28 = 64 (T) · 89 - 13 = 76 (U) · 51 - 1 = 50 (R) · 58 - 22 = 36 (I) · 41 - 21 = 20 (W) · 63 - 6 = 57 (B) · 75 - 22 = 53 (M) · 87 - 5 = 82 (N) · 66 - 15 = 51 (Y) · 25 - 13 = 12 (C) · 35 - 2 = 33 (S) · 45 - 31 = 14 (H) · 93 - 34 = 59 (A) · 73 - 12 = 61 (D) · 59 - 27 = 32 (K) · 60 - 16 = 44 (E) · 52 - 13 = 39 (F) · 47 - 20 = 27 (L)

Clue 3 (Skip counting): "A LOUD BELL SOUND SCARED OFF THE VILLAIN"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 = 70 (A) · Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (B) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 = 120 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 = 60 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 = 40 (R) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (C) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, ___, 60, 70 = 50 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 = 35 (H) · 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, ___, 35, 40 = 30 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, ___, 20, 22 = 18 (V) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, ___, 22, 24 = 20 (F) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 = 42 (L)

Clue 4 (Place value): "CURLY PIXEL HAIR WAS FOUND ON THE BLOCK"

What number has 3 tens and 4 ones? = 34 (C) · What number has 3 tens and 2 ones? = 32 (L) · What number has 4 tens and 3 ones? = 43 (D) · What number has 1 ten and 3 ones? = 13 (E) · What number has 9 tens and 6 ones? = 96 (K) · What number has 2 tens and 5 ones? = 25 (B) · What number has 3 tens and 8 ones? = 38 (X) · What number has 1 ten and 6 ones? = 16 (P) · What number has 7 tens and 7 ones? = 77 (N) · What number has 5 tens and 8 ones? = 58 (O) · What number has 4 tens and 2 ones? = 42 (F) · What number has 9 tens and 7 ones? = 97 (H) · What number has 7 tens and 4 ones? = 74 (A) · What number has 8 tens and 5 ones? = 85 (S) · What number has 8 tens and 4 ones? = 84 (Y) · What number has 4 tens and 4 ones? = 44 (W) · What number has 8 tens and 7 ones? = 87 (R) · What number has 5 tens and 2 ones? = 52 (I) · What number has 9 tens and 8 ones? = 98 (U) · What number has 3 tens and 6 ones? = 36 (T)

Clue 5 (Missing addends): surviving statement is box 12 → Cody Craft

7 + ___ = 17 = 10 · 6 + ___ = 17 = 11 · 10 + ___ = 18 = 8 · 8 + ___ = 10 = 2 · 1 + ___ = 6 = 5 · 6 + ___ = 13 = 7 · 4 + ___ = 5 = 1 · 7 + ___ = 13 = 6 · 10 + ___ = 19 = 9 · 2 + ___ = 6 = 4 · 7 + ___ = 10 = 3