The Mystery of the Stolen Pickaxe

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

Detective: _____ **Date:** _____

Someone snuck into the craft shop and took the shiny diamond pickaxe! Use your block math to catch the sneaky builder.

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 Sneaky Builder is _____

Possible suspects

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

NAME	TOOL USED	BLOCK CARRIED	WEARS HELMET	CAPE COLOR	SCARED OF
Crafter Grace	Iron Sword	Emerald Block	Iron Helmet	Blue Cape	Bright Torches
Crafty Steve	Iron Sword	Obsidian Block	Iron Helmet	Blue Cape	Water Buckets
Hunter Ava	Iron Sword	Obsidian Block	Iron Helmet	Blue Cape	Loud Cats
Guard Ella	Golden Shovel	Redstone Block	Iron Helmet	Blue Cape	Bright Torches
Crafter Meg	Wooden Hoe	Obsidian Block	Iron Helmet	Green Cape	Bright Torches
Farmer Iris	Golden Shovel	Emerald Block	No Helmet	Blue Cape	Water Buckets
Smith Zoe	Stone Axe	Redstone Block	No Helmet	Red Cape	Water Buckets
Mason Jack	Golden Shovel	Glowstone Block	No Helmet	Red Cape	Loud Cats
Farmer Leo	Stone Axe	Redstone Block	Iron Helmet	Blue Cape	Bright Torches
Scout Finn	Iron Sword	Emerald Block	Iron Helmet	Blue Cape	Loud Cats
Digger Dan	Wooden Hoe	Redstone Block	No Helmet	Red Cape	Bright Torches
Builder Alex	Stone Axe	Glowstone Block	No Helmet	Blue Cape	Loud Cats
Ranger Ivy	Stone Axe	Slime Block	Iron Helmet	Blue Cape	Loud Cats
Ranger Jay	Iron Sword	Glowstone Block	No Helmet	Blue Cape	Loud Cats
Mason Kay	Iron Sword	Redstone Block	Iron Helmet	Blue Cape	Loud Cats
Digger Hank	Iron Sword	Glowstone Block	Iron Helmet	Green Cape	Loud Cats
Explorer Eli	Stone Axe	Slime Block	No Helmet	Red Cape	Bright Torches
Miner Carl	Iron Sword	Emerald Block	No Helmet	Red Cape	Loud Cats
Trapper Max	Wooden Hoe	Obsidian Block	Iron Helmet	Blue Cape	Loud Cats
Builder Bob	Bow and Arrow	Slime Block	Iron Helmet	Blue Cape	Water Buckets
Pioneer Mia	Iron Sword	Redstone Block	No Helmet	Blue Cape	Loud Cats

CLUE 1 Addition

You add up all the torches found outside the shop to get your first clue.

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

T																		T					
18	16	6	2	14	12	12	5	14	11	10	3	6	17	11	3	18							
								T															
15	5	19	19	20	19	6	10	17	18	3	11	6	8	12	3	15	4	17					

6 + 12 = ☐ → T

5 + 5 = ☐ → D

6 + 11 = ☐ → S

14 + 6 = ☐ → Y

9 + 5 = ☐ → I

11 + 8 = ☐ → R

7 + 5 = ☐ → L

1 + 3 = ☐ → K

2 + 6 = ☐ → B

5 + 10 = ☐ → C

2 + 4 = ☐ → E

3 + 2 = ☐ → A

6 + 10 = ☐ → H

1 + 2 = ☐ → O

8 + 3 = ☐ → N

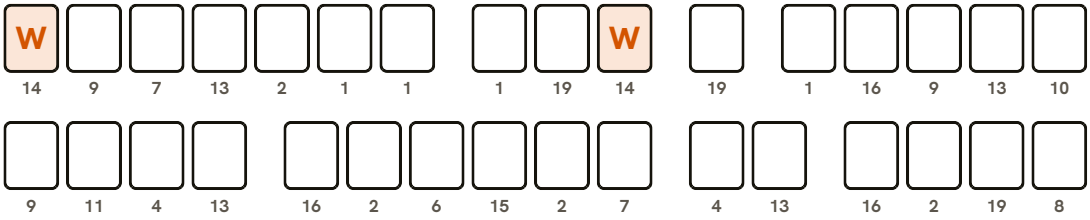
1 + 1 = ☐ → V

Scratch space:

CLUE 2 Subtraction

You take away the broken wooden blocks to find hidden tracks in the dirt.

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



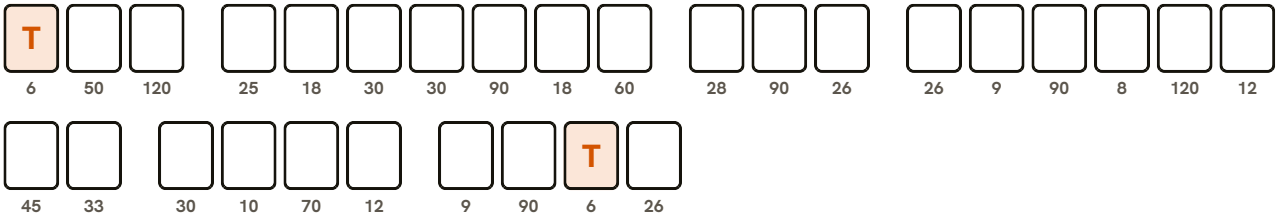
20 - 6 = ☐ → W	5 - 4 = ☐ → S	17 - 4 = ☐ → N	14 - 5 = ☐ → I
14 - 4 = ☐ → Y	16 - 9 = ☐ → T	11 - 9 = ☐ → E	
15 - 9 = ☐ → L	20 - 4 = ☐ → H	11 - 3 = ☐ → D	
14 - 3 = ☐ → R	17 - 2 = ☐ → M	9 - 5 = ☐ → O	20 - 1 = ☐ → A

Scratch space:

CLUE 3 Skip counting

You count the green creeper tracks by twos across the square field.

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, ___, 8, 10 [ ] → **T**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, ___, 21, 24 [ ] → **I**

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 [ ] → **C**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 [ ] → **D**

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

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

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

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, ___, 33, 36 [ ] → **L**

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

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

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

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

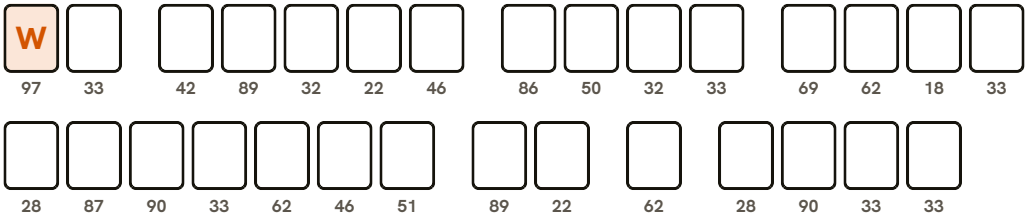
Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 ☐ → **A**

Scratch space:

CLUE 4 Place value

You look at the tens and ones on the locked chest to read the code.

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



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

What number has 2 tens and 2 ones? ☐ → N

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

What number has 5 tens and 0 ones? ☐ → L

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

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

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

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

What number has 6 tens and 2 ones? ☐ → A

What number has 1 ten and 8 ones? ☐ → P

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

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

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

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

What number has 5 tens and 1 one? ☐ → S

What number has 8 tens and 6 ones? ☐ → B

Scratch space:

CLUE 5 Missing addends - the last clue

You figure out how many iron bars are missing from the broken cage.

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:

2 + ___ = 12 ☐	5 + ___ = 12 ☐	8 + ___ = 12 ☐	4 + ___ = 6 ☐
8 + ___ = 14 ☐	4 + ___ = 9 ☐	3 + ___ = 4 ☐	4 + ___ = 12 ☐
6 + ___ = 15 ☐	6 + ___ = 18 ☐	8 + ___ = 19 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain dug with a golden shovel, then hid an emerald block.
2. The villain chopped with a stone axe, then lit up a glowstone block.
3. The villain swung an iron sword, then dropped an obsidian block.
4. The villain swung an iron sword, then hid an emerald block.
5. The villain shot a bow and arrow, then lit up a glowstone block.
6. The villain dug with a golden shovel, then lit up a glowstone block.
7. The villain scraped with a wooden hoe, then dropped an obsidian block.
8. The villain chopped with a stone axe, then dropped an obsidian block.
9. The villain swung an iron sword, then placed a redstone block.
10. The villain chopped with a stone axe, then bounced on a slime block.
11. The villain scraped with a wooden hoe, then lit up a glowstone block.
12. The villain dug with a golden shovel, then dropped an obsidian block.

TEACHER / PARENT

Answer Key

The Mystery of the Stolen Pickaxe

Culprit: Hunter Ava

Iron Sword · Obsidian Block · Iron Helmet · Blue Cape · Loud Cats

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE VILLAIN DOES NOT CARRY REDSTONE BLOCKS"

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

Clue 2 (Subtraction): "WITNESS SAW A SHINY IRON HELMET ON HEAD"

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

Clue 3 (Skip counting): "THE VILLAIN WAS SCARED BY LOUD CATS"

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, ___, 21, 24 = 18 (I) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (C) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, ___, 75, 80 = 70 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 = 12 (D) · 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 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 = 60 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 = 25 (V) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (Y) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (S) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, ___, 33, 36 = 30 (L) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, ___, 55, 60 = 50 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, ___, 10, 12 = 8 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (B) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 = 90 (A)

Clue 4 (Place value): "WE FOUND BLUE CAPE THREADS ON A TREE"

What number has 9 tens and 7 ones? = 97 (W) · What number has 2 tens and 2 ones? = 22 (N) · What number has 6 tens and 9 ones? = 69 (C) · What number has 5 tens and 0 ones? = 50 (L) · What number has 3 tens and 3 ones? = 33 (E) · What number has 8 tens and 9 ones? = 89 (O) · What number has 2 tens and 8 ones? = 28 (T) · What number has 9 tens and 0 ones? = 90 (R) · What number has 6 tens and 2 ones? = 62 (A) · What number has 1 ten and 8 ones? = 18 (P) · What number has 4 tens and 6 ones? = 46 (D) · What number has 3 tens and 2 ones? = 32 (U) · What number has 4 tens and 2 ones? = 42 (F) · What number has 8 tens and 7 ones? = 87 (H) · What number has 5 tens and 1 one? = 51 (S) · What number has 8 tens and 6 ones? = 86 (B)

Clue 5 (Missing addends): surviving statement is box 3 → Hunter Ava

2 + ___ = 12 = 10 · 5 + ___ = 12 = 7 · 8 + ___ = 12 = 4 · 4 + ___ = 6 = 2 · 8 + ___ = 14 = 6 · 4 + ___ = 9 = 5 · 3 + ___ = 4 = 1 · 4 + ___ = 12 = 8 · 6 + ___ = 15 = 9 · 6 + ___ = 18 = 12 · 8 + ___ = 19 = 11