The Mystery of the Missing Diamond Block

Grade 3 math · Multiplication, Rounding, Addition, Subtraction, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone snuck into the master workshop and snatched the golden beacon! Use your decoder wheel and math clues to track down 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 Griefer is _____

Possible suspects

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

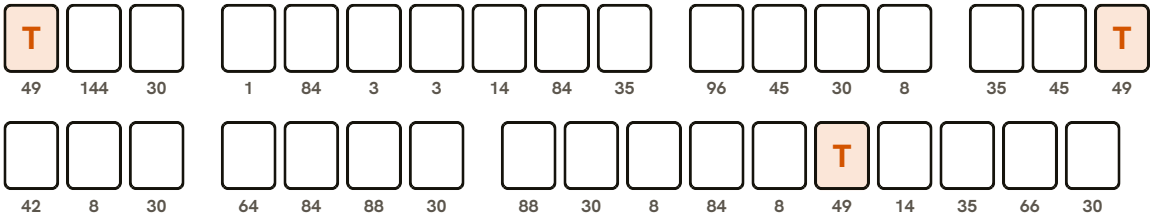
NAME	TOOL	POTION EFFECT	HANDEDNESS	HELMET STYLE	FEAR
Aphmau	Trident	Invisibility	Left Handed	Turtle Shell	Lava
Rendog	Trident	Leaping	Left Handed	Iron Helmet	Water
Stampy	Netherite Pickaxe	Night Vision	Right Handed	Turtle Shell	Water
Dan	Trident	Invisibility	Left Handed	Turtle Shell	Water
Preston	Enchanted Bow	Invisibility	Left Handed	Turtle Shell	Water
Captain	Netherite Pickaxe	Night Vision	Left Handed	Turtle Shell	Water
SWRD	Golden Axe	Night Vision	Left Handed	Leather Cap	Creepers
Impulse	Golden Axe	Leaping	Right Handed	Turtle Shell	Lava
Alex	Diamond Sword	Speed	Left Handed	Leather Cap	Water
Gemini	Enchanted Bow	Leaping	Right Handed	Turtle Shell	Lava
Mumbo	Netherite Pickaxe	Fire Resistance	Left Handed	Turtle Shell	Water
Steve	Enchanted Bow	Speed	Right Handed	Leather Cap	Creepers
Unspeakable	Netherite Pickaxe	Night Vision	Right Handed	Leather Cap	Water
Bdubs	Trident	Leaping	Right Handed	Turtle Shell	Creepers
Notch	Enchanted Bow	Leaping	Right Handed	Turtle Shell	Water
Etho	Trident	Leaping	Right Handed	Leather Cap	Creepers
Tango	Golden Axe	Leaping	Left Handed	Iron Helmet	Water
Jeb	Netherite Pickaxe	Leaping	Left Handed	Turtle Shell	Water
Docm	Trident	Leaping	Right Handed	Leather Cap	Water
Keralis	Golden Axe	Night Vision	Right Handed	Leather Cap	Lava
Iskall	Netherite Pickaxe	Night Vision	Right Handed	Iron Helmet	Creepers

make your own at mathcrackers.com

CLUE 1 Multiplication facts (1-12)

> To decipher the craft room door code, you count the blocks placed in equal rows.

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



7 × 7 = ☐ → T

6 × 5 = ☐ → E

7 × 6 = ☐ → U

1 × 1 = ☐ → V

1 × 8 = ☐ → S

8 × 12 = ☐ → D

8 × 8 = ☐ → F

11 × 8 = ☐ → R

3 × 1 = ☐ → L

12 × 12 = ☐ → H

12 × 7 = ☐ → I

5 × 7 = ☐ → N

9 × 5 = ☐ → O

7 × 2 = ☐ → A

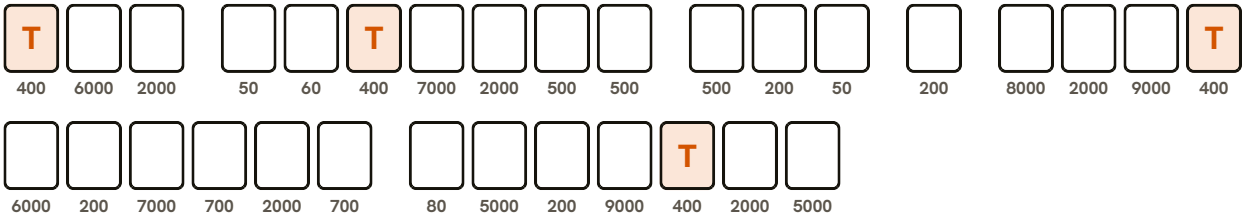
6 × 11 = ☐ → C

Scratch space:

CLUE 2 Rounding

The redstone monitor only displays coordinates rounded to the nearest ten.

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



Round 419 to the nearest hundred ☐ → **T**

Round 2,416 to the nearest thousand ☐ → **E**

Round 8,532 to the nearest thousand ☐ → **F**

Round 5,624 to the nearest thousand ☐ → **H**

Round 186 to the nearest hundred ☐ → **A**

Round 7,174 to the nearest thousand ☐ → **N**

Round 82 to the nearest ten ☐ → **C**

Round 549 to the nearest hundred ☐ → **S**

Round 53 to the nearest ten ☐ → **W**

Round 56 to the nearest ten ☐ → **I**

Round 686 to the nearest hundred ☐ → **D**

Round 7,785 to the nearest thousand ☐ → **L**

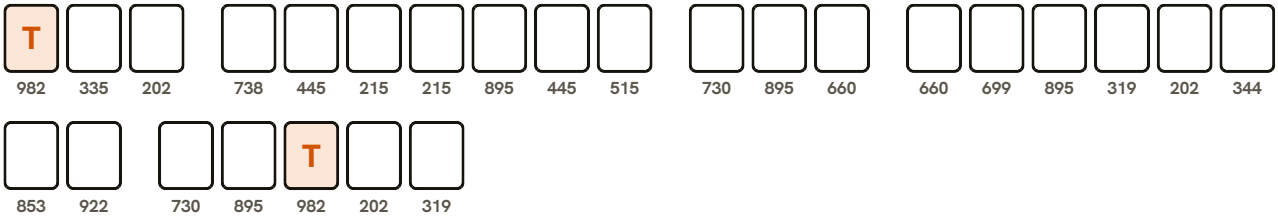
Round 5,274 to the nearest thousand ☐ → **R**

Scratch space:

CLUE 3 Addition

You check the chest inventory by adding together all the gathered ores.

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



360 + 622 = ☐ → T

104 + 98 = ☐ → E

152 + 293 = ☐ → I

227 + 511 = ☐ → V

331 + 564 = ☐ → A

479 + 251 = ☐ → W

166 + 169 = ☐ → H

453 + 246 = ☐ → C

170 + 174 = ☐ → D

315 + 345 = ☐ → S

479 + 374 = ☐ → O

505 + 417 = ☐ → F

144 + 71 = ☐ → L

193 + 126 = ☐ → R

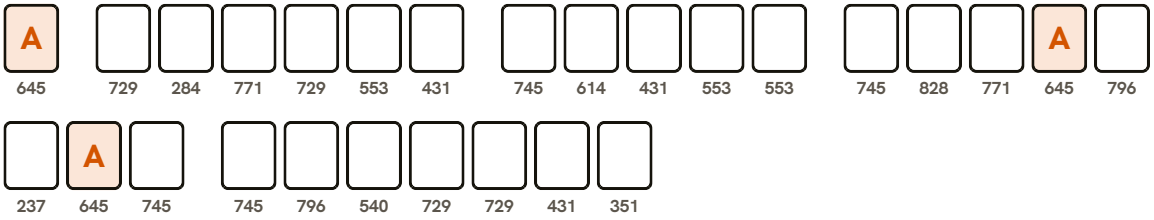
306 + 209 = ☐ → N

Scratch space:

CLUE 4 Subtraction

You figure out how much redstone dust was used by taking away what is left.

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



1030 - 385 = ☐ → A

901 - 105 = ☐ → P

439 - 8 = ☐ → E

489 - 252 = ☐ → W

953 - 224 = ☐ → T

494 - 210 = ☐ → U

655 - 102 = ☐ → L

699 - 348 = ☐ → D

1159 - 331 = ☐ → C

693 - 79 = ☐ → H

928 - 183 = ☐ → S

759 - 219 = ☐ → O

897 - 126 = ☐ → R

Scratch space:

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

> To organize your inventory, you divide the iron ingots into equal stacks.

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:

99 ÷ 11 = ☐ | 88 ÷ 8 = ☐ | 16 ÷ 2 = ☐ | 77 ÷ 11 = ☐ | 3 ÷ 3 = ☐

48 ÷ 12 = ☐ | 18 ÷ 9 = ☐ | 9 ÷ 3 = ☐ | 60 ÷ 5 = ☐ | 42 ÷ 7 = ☐

70 ÷ 7 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain swung a diamond sword, then sipped speed potion.
2. The villain shot an enchanted bow, then guzzled night vision potion.
3. The villain chopped with a golden axe, then splashed leaping potion.
4. The villain chopped with a golden axe, then guzzled night vision potion.
5. The villain threw a trident, then drank invisibility potion.
6. The villain threw a trident, then sipped speed potion.
7. The villain threw a trident, then guzzled night vision potion.
8. The villain shot an enchanted bow, then drank invisibility potion.
9. The villain dug with a netherite pickaxe, then splashed leaping potion.
10. The villain shot an enchanted bow, then sipped speed potion.
11. The villain dug with a netherite pickaxe, then guzzled night vision potion.
12. The villain threw a trident, then brewed fire resistance potion.

TEACHER / PARENT

Answer Key

The Mystery of the Missing Diamond Block

Culprit: Dan

Trident · Invisibility · Left Handed · Turtle Shell · Water

Trail: Start 21 → Clue 1 20 → Clue 2 9 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT USE FIRE RESISTANCE"

7 × 7 = 49 (T) · 6 × 5 = 30 (E) · 7 × 6 = 42 (U) · 1 × 1 = 1 (V) · 1 × 8 = 8 (S) · 8 × 12 = 96 (D) · 8 × 8 = 64 (F) · 11 × 8 = 88 (R) · 3 × 1 = 3 (L) · 12 × 12 = 144 (H) · 12 × 7 = 84 (I) · 5 × 7 = 35 (N) · 9 × 5 = 45 (O) · 7 × 2 = 14 (A) · 6 × 11 = 66 (C)

Clue 2 (Rounding): "THE WITNESS SAW A LEFT HANDED CRAFTER"

Round 419 to the nearest hundred = 400 (T) · Round 2,416 to the nearest thousand = 2000 (E) · Round 8,532 to the nearest thousand = 9000 (F) · Round 5,624 to the nearest thousand = 6000 (H) · Round 186 to the nearest hundred = 200 (A) · Round 7,174 to the nearest thousand = 7000 (N) · Round 82 to the nearest ten = 80 (C) · Round 549 to the nearest hundred = 500 (S) · Round 53 to the nearest ten = 50 (W) · Round 56 to the nearest ten = 60 (I) · Round 686 to the nearest hundred = 700 (D) · Round 7,785 to the nearest thousand = 8000 (L) · Round 5,274 to the nearest thousand = 5000 (R)

Clue 3 (Addition): "THE VILLAIN WAS SCARED OF WATER"

360 + 622 = 982 (T) · 104 + 98 = 202 (E) · 152 + 293 = 445 (I) · 227 + 511 = 738 (V) · 331 + 564 = 895 (A) · 479 + 251 = 730 (W) · 166 + 169 = 335 (H) · 453 + 246 = 699 (C) · 170 + 174 = 344 (D) · 315 + 345 = 660 (S) · 479 + 374 = 853 (O) · 505 + 417 = 922 (F) · 144 + 71 = 215 (L) · 193 + 126 = 319 (R) · 306 + 209 = 515 (N)

Clue 4 (Subtraction): "A TURTLE SHELL SCRAP WAS SPOTTED"

1030 - 385 = 645 (A) · 901 - 105 = 796 (P) · 439 - 8 = 431 (E) · 489 - 252 = 237 (W) · 953 - 224 = 729 (T) · 494 - 210 = 284 (U) · 655 - 102 = 553 (L) · 699 - 348 = 351 (D) · 1159 - 331 = 828 (C) · 693 - 79 = 614 (H) · 928 - 183 = 745 (S) · 759 - 219 = 540 (O) · 897 - 126 = 771 (R)

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

99 ÷ 11 = 9 · 88 ÷ 8 = 11 · 16 ÷ 2 = 8 · 77 ÷ 11 = 7 · 3 ÷ 3 = 1 · 48 ÷ 12 = 4 · 18 ÷ 9 = 2 · 9 ÷ 3 = 3 · 60 ÷ 5 = 12 · 42 ÷ 7 = 6 · 70 ÷ 7 = 10