



The Great Block Mystery

Grade 6 math · Percentages, Word problems, Exponents, Order of operations, Division · Reading level grades 1-2

Detective: _____ Date: _____

Someone broke into the big castle. They stole the golden blocks! The village needs your help. Solve the math puzzles 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 Grieving Phantom is _____

Possible suspects

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

NAME	TOOL OF CHOICE	SPECIAL BLOCK	MINING HAND	HELMET TYPE	FEARED MOB
Etho	Golden Axe	TNT Block	Right-Handed mining	Gold Helmet	Creepers
Tango	Golden Axe	Sponge Block	Right-Handed mining	Iron Helmet	Phantoms
Tommy	Bow and Arrow	Sponge Block	Right-Handed mining	Gold Helmet	Phantoms
Alex	Bow and Arrow	Glowstone	Left-Handed mining	Iron Helmet	Phantoms
Preston	Iron Shovel	TNT Block	Left-Handed mining	Iron Helmet	Phantoms
Grian	Netherite Sword	TNT Block	Right-Handed mining	Iron Helmet	Phantoms
Agnes	Netherite Sword	Glowstone	Right-Handed mining	Iron Helmet	Phantoms
Doc	Golden Axe	Redstone Lamp	Left-Handed mining	Iron Helmet	Creepers
Pearl	Golden Axe	TNT Block	Right-Handed mining	Gold Helmet	Phantoms
Notch	Golden Axe	Sponge Block	Right-Handed mining	Gold Helmet	Creepers
Jordan	Bow and Arrow	Glowstone	Right-Handed mining	Gold Helmet	Phantoms
Lydia	Golden Axe	Glowstone	Left-Handed mining	Turtle Shell	Creepers
Mumbo	Iron Shovel	Glowstone	Left-Handed mining	Gold Helmet	Phantoms
Scar	Golden Axe	Redstone Lamp	Right-Handed mining	Gold Helmet	Phantoms
Bdubs	Golden Axe	Glowstone	Left-Handed mining	Iron Helmet	Creepers
Tubbo	Golden Axe	Glowstone	Left-Handed mining	Turtle Shell	Endermen
Stampy	Diamond Pickaxe	Slime Block	Right-Handed mining	Gold Helmet	Phantoms
Dan	Golden Axe	Slime Block	Left-Handed mining	Turtle Shell	Creepers
Wilbur	Diamond Pickaxe	Slime Block	Right-Handed mining	Turtle Shell	Endermen
Ranboo	Bow and Arrow	Slime Block	Right-Handed mining	Turtle Shell	Endermen
Gem	Bow and Arrow	TNT Block	Left-Handed mining	Iron Helmet	Phantoms

CLUE 1 Percentages

The thief took some items from our chest. Help us count the loot to find the first clue.

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

T																			
29	31	36	23	7	9	9	11	25	9	36	13	27	9	29	17	13	36	15	

				T									
7	36	25	13	29	9	27	36	6	15	4	3		

$10\% \text{ of } 290 = \square \rightarrow \boxed{\text{T}}$

$75\% \text{ of } 8 = \square \rightarrow \boxed{\text{L}}$

$50\% \text{ of } 46 = \square \rightarrow \boxed{\text{C}}$

$50\% \text{ of } 62 = \square \rightarrow \boxed{\text{H}}$

$5\% \text{ of } 60 = \square \rightarrow \boxed{\text{P}}$

$5\% \text{ of } 260 = \square \rightarrow \boxed{\text{S}}$

$25\% \text{ of } 16 = \square \rightarrow \boxed{\text{M}}$

$20\% \text{ of } 180 = \square \rightarrow \boxed{\text{E}}$

$10\% \text{ of } 90 = \square \rightarrow \boxed{\text{O}}$

$25\% \text{ of } 60 = \square \rightarrow \boxed{\text{A}}$

$5\% \text{ of } 340 = \square \rightarrow \boxed{\text{U}}$

$50\% \text{ of } 14 = \square \rightarrow \boxed{\text{R}}$

$50\% \text{ of } 54 = \square \rightarrow \boxed{\text{N}}$

$50\% \text{ of } 50 = \square \rightarrow \boxed{\text{D}}$

$5\% \text{ of } 220 = \square \rightarrow \boxed{\text{K}}$

Scratch space:

CLUE 2

Word problems

Our energy bar is not full. We must calculate the percent of battery left to unlock this chest.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

R									D	E	D	M					
14	71	93	25	8	25	22	110						71	110	71	110	93

The armorer lined up 2 rows of 7 torch sticks. How many torch sticks in all?

Answer: → **R**

There were 106 emeralds. 13 were used up. How many emeralds are left?

Answer: → **G**

The armorer found 78 emeralds yesterday and 32 more today. How many emeralds in all?

Answer: → **N**

The armorer lined up 5 rows of 5 diamonds. How many diamonds in all?

Answer: → **H**

There were 47 slimeballs. 39 were used up. How many slimeballs are left?

Answer: → **T**

The armorer found 6 slimeballs yesterday and 16 more today. How many slimeballs in all?

Answer: → **A**

The armorer found 6 bread loaves yesterday and 65 more today. How many bread loaves in all?

Answer: → **I**

Scratch space:

CLUE 3 Exponents

The blocks are stacked in big square patterns. Solve the power rules to dig through them.

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

T										T									
361	25	256	169	289	169	216	256	8	361	27	144	169	169	8	144	243	256	324	
						T													
32	100	216	25	144	343	361	32	128	169										

$19^2 = \square \rightarrow \text{T}$	$17^2 = \square \rightarrow \text{U}$	$10^2 = \square \rightarrow \text{F}$	$3^3 = \square \rightarrow \text{W}$
$6^3 = \square \rightarrow \text{P}$	$3^5 = \square \rightarrow \text{R}$	$12^2 = \square \rightarrow \text{A}$	$7^3 = \square \rightarrow \text{N}$
$2^3 = \square \rightarrow \text{C}$	$2^7 = \square \rightarrow \text{M}$	$18^2 = \square \rightarrow \text{D}$	$2^5 = \square \rightarrow \text{O}$
$13^2 = \square \rightarrow \text{S}$	$4^4 = \square \rightarrow \text{E}$	$5^2 = \square \rightarrow \text{H}$	

Scratch space:

CLUE 4

Order of operations

We must press the redstone buttons in the exact right order to open the locked iron door.

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

W										W								
75	10	7	58	9	42	78	73	56	40	58	75	37	42	56	56	58	40	78
55	10	40	13	10	57	37	42	57	55	10	16	73	24	10				

$7 \times 12 - 9 = \square \rightarrow \boxed{W}$

$5 \times 7 - 28 = \square \rightarrow \boxed{F}$

$7 \times 12 - 27 = \square \rightarrow \boxed{T}$

$8 \times 11 - 15 = \square \rightarrow \boxed{A}$

$28 + 3 \times 4 = \square \rightarrow \boxed{L}$

$25 + 4 \times 3 = \square \rightarrow \boxed{I}$

$7 + 5 \times 7 = \square \rightarrow \boxed{N}$

$7 + 3 \times 2 = \square \rightarrow \boxed{M}$

$2 \times 7 - 5 = \square \rightarrow \boxed{U}$

$30 + 6 \times 8 = \square \rightarrow \boxed{D}$

$44 + 4 \times 3 = \square \rightarrow \boxed{G}$

$38 + 4 \times 5 = \square \rightarrow \boxed{O}$

$6 \times 4 - 14 = \square \rightarrow \boxed{E}$

$7 \times 8 - 1 = \square \rightarrow \boxed{H}$

$3 \times 6 - 2 = \square \rightarrow \boxed{C}$

$9 + 3 \times 5 = \square \rightarrow \boxed{V}$

Scratch space:

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

We need to share our golden apples equally among the team to get the final 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:

$28 \div 4 = \boxed{}$

$108 \div 9 = \boxed{}$

$30 \div 3 = \boxed{}$

$35 \div 7 = \boxed{}$

$24 \div 4 = \boxed{}$

$72 \div 9 = \boxed{}$

$1 \div 1 = \boxed{}$

$10 \div 5 = \boxed{}$

$3 \div 1 = \boxed{}$

$18 \div 2 = \boxed{}$

$20 \div 5 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain dug a deep hole in the lawn, then lit the dark path with a redstone lamp.
2. The villain chopped down the giant oak trees, then placed a block of glowing glowstone.
3. The villain slashed the cobwebs in the mineshaft, then placed a block of glowing glowstone.
4. The villain chopped down the giant oak trees, then lit the dark path with a redstone lamp.
5. The villain shot down the target blocks, then blew up the bridge with tnt.
6. The villain mined through the obsidian wall, then lit the dark path with a redstone lamp.
7. The villain shot down the target blocks, then soaked up the water source with a sponge.
8. The villain mined through the obsidian wall, then placed a block of glowing glowstone.
9. The villain dug a deep hole in the lawn, then blew up the bridge with tnt.
10. The villain shot down the target blocks, then placed a block of glowing glowstone.
11. The villain mined through the obsidian wall, then bounced away on a slime block.
12. The villain chopped down the giant oak trees, then blew up the bridge with tnt.

Answer Key

The Great Block Mystery

Culprit: Stampy

Diamond Pickaxe · Slime Block · Right-Handed mining · Gold Helmet · Phantoms

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Percentages): "THE CROOK DOES NOT USE A REDSTONE LAMP"

10% of 290 = 29 (T) · 75% of 8 = 6 (L) · 50% of 46 = 23 (C) · 50% of 62 = 31 (H) · 5% of 60 = 3 (P) · 5% of 260 = 13 (S) · 25% of 16 = 4 (M) · 20% of 180 = 36 (E) · 10% of 90 = 9 (O) · 25% of 60 = 15 (A) · 5% of 340 = 17 (U) · 50% of 14 = 7 (R) · 50% of 54 = 27 (N) · 50% of 50 = 25 (D) · 5% of 220 = 11 (K)

Clue 2 (Word problems): "RIGHT HANDED MINING"

The armorer lined up 2 rows of 7 torch sticks. How many torch sticks in all? = 14 (R) · There were 106 emeralds. 13 were used up. How many emeralds are left? = 93 (G) · The armorer found 78 emeralds yesterday and 32 more today. How many emeralds in all? = 110 (N) · The armorer lined up 5 rows of 5 diamonds. How many diamonds in all? = 25 (H) · There were 47 slimeballs. 39 were used up. How many slimeballs are left? = 8 (T) · The armorer found 6 slimeballs yesterday and 16 more today. How many slimeballs in all? = 22 (A) · The armorer found 6 bread loaves yesterday and 65 more today. How many bread loaves in all? = 71 (I)

Clue 3 (Exponents): "THE SUSPECT WAS SCARED OF PHANTOMS"

$19^2 = 361$ (T) · $17^2 = 289$ (U) · $10^2 = 100$ (F) · $3^3 = 27$ (W) · $6^3 = 216$ (P) · $3^5 = 243$ (R) · $12^2 = 144$ (A) · $7^3 = 343$ (N) · $2^3 = 8$ (C) · $2^7 = 128$ (M) · $18^2 = 324$ (D) · $2^5 = 32$ (O) · $13^2 = 169$ (S) · $4^4 = 256$ (E) · $5^2 = 25$ (H)

Clue 4 (Order of operations): "WE FOUND A GLOWING GOLD HELMET IN THE CAVE"

$7 \times 12 - 9 = 75$ (W) · $5 \times 7 - 28 = 7$ (F) · $7 \times 12 - 27 = 57$ (T) · $8 \times 11 - 15 = 73$ (A) · $28 + 3 \times 4 = 40$ (L) · $25 + 4 \times 3 = 37$ (I) · $7 + 5 \times 7 = 42$ (N) · $7 + 3 \times 2 = 13$ (M) · $2 \times 7 - 5 = 9$ (U) · $30 + 6 \times 8 = 78$ (D) · $44 + 4 \times 3 = 56$ (G) · $38 + 4 \times 5 = 58$ (O) · $6 \times 4 - 14 = 10$ (E) · $7 \times 8 - 1 = 55$ (H) · $3 \times 6 - 2 = 16$ (C) · $9 + 3 \times 5 = 24$ (V)

Clue 5 (Division facts (1-12)): surviving statement is box 11 → Stampy

$28 \div 4 = 7$ · $108 \div 9 = 12$ · $30 \div 3 = 10$ · $35 \div 7 = 5$ · $24 \div 4 = 6$ · $72 \div 9 = 8$ · $1 \div 1 = 1$ · $10 \div 5 = 2$ · $3 \div 1 = 3$ · $18 \div 2 = 9$ · $20 \div 5 = 4$