



The Golden Coconut Mystery

Grade 7 math · Integers, Percentages, Order of operations, Exponents, Two-step equations · Reading level grades 3-4

Detective: _____ **Date:** _____

A rogue explorer has snatched the Golden Coconut from the Jungle Temple! You and your team of Junior Pathfinders must search Mount Canopy to find the thief before they escape on their glider.

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 rogue explorer is _____

Possible suspects

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

NAME	ESCAPE GEAR	SPECIAL TOOL	PADDLING HAND	FIBER EVIDENCE	MAJOR FEAR
Mia	zipline glider	smoke bomb	left handed paddle	green cap thread	allergic to pollen
Cole	rope launcher	robo parrot	right handed paddle	green cap thread	fears spiders
Zoe	zipline glider	decoder lens	right handed paddle	yellow cap thread	hates mud
Eli	climbing claws	robo parrot	right handed paddle	green cap thread	fears spiders
Dan	climbing claws	robo parrot	right handed paddle	green cap thread	allergic to pollen
Eva	bamboo snorkel	robo parrot	left handed paddle	green cap thread	allergic to pollen
Lara	rope launcher	robo parrot	right handed paddle	blue cap thread	hates mud
Ruby	bamboo snorkel	flash whistle	right handed paddle	yellow cap thread	allergic to pollen
Ivy	zipline glider	robo parrot	left handed paddle	yellow cap thread	fears spiders
Ben	bamboo snorkel	smoke bomb	right handed paddle	green cap thread	hates mud
Gus	climbing claws	robo parrot	left handed paddle	green cap thread	allergic to pollen
Amy	bamboo snorkel	robo parrot	right handed paddle	green cap thread	allergic to pollen
Finn	grappling hook	flash whistle	left handed paddle	yellow cap thread	allergic to pollen
Toby	grappling hook	decoder lens	left handed paddle	green cap thread	allergic to pollen
Kai	bamboo snorkel	robo parrot	right handed paddle	blue cap thread	fears spiders
Mae	bamboo snorkel	pocket compass	left handed paddle	blue cap thread	allergic to pollen
Indy	bamboo snorkel	flash whistle	left handed paddle	green cap thread	allergic to pollen
Roy	climbing claws	smoke bomb	right handed paddle	green cap thread	fears spiders
Leo	bamboo snorkel	smoke bomb	left handed paddle	green cap thread	fears spiders
Max	rope launcher	decoder lens	right handed paddle	green cap thread	allergic to pollen
Rex	zipline glider	decoder lens	left handed paddle	green cap thread	fears spiders

CLUE 1 Integers

To unlock the temple gate, we must check the temperature gauge. It dips below zero at night. Look at the numbers to find the code.

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

The diagram consists of two rows of boxes. The top row has 14 boxes, and the bottom row has 10 boxes. Some boxes are shaded orange and contain the letter 'T'. Below each box is a number.

Box	Top Row	Bottom Row	Number
1	T		28
2			4
3			23
4	T		28
5			4
6			24
7			23
8			8
9			17
10			3
11			23
12			16
13			2
14	T		3
15			28
16			12
17			16
18			23
19			26
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

$$(-13) + 41 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$10 - (-6) = \boxed{} \rightarrow \boxed{\text{S}}$$

$$(-7) + 9 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$(-5) + 13 = \boxed{} \rightarrow \boxed{\text{F}}$$

$$28 - (-2) = \boxed{} \rightarrow \boxed{\text{M}}$$

$$(-15) + 38 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$(-10) + 28 = \boxed{} \rightarrow \boxed{\mathbf{B}}$$

$$16 - (-10) = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

$$(-8) + 11 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$(-10) + 14 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$17 - (-7) = \boxed{} \rightarrow \boxed{I}$$

$$16 - (-6) = \boxed{} \rightarrow \boxed{\text{K}}$$

$$(-12) + 24 = \boxed{} \rightarrow \boxed{\text{U}}$$

$12 - (-5) = \boxed{} \rightarrow \boxed{\text{D}}$

Scratch space:

CLUE 2

Percentages

Your glider battery is dropping. We need to calculate how much power is left to fly across the deep canyon.

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

T			T											T				
47	54	9	47	54	40	9	28	15	10	40	1	46	15	47	54	9	40	37
			T															
31	9	28	47	54	45	1	56	9	56	11	45	56	56	31	9			

$5\% \text{ of } 940 = \square \rightarrow \boxed{\text{T}}$

$20\% \text{ of } 280 = \square \rightarrow \boxed{\text{D}}$

$40\% \text{ of } 115 = \square \rightarrow \boxed{\text{G}}$

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

$10\% \text{ of } 370 = \square \rightarrow \boxed{\text{R}}$

$25\% \text{ of } 44 = \square \rightarrow \boxed{\text{P}}$

$20\% \text{ of } 140 = \square \rightarrow \boxed{\text{F}}$

$5\% \text{ of } 200 = \square \rightarrow \boxed{\text{W}}$

$50\% \text{ of } 2 = \square \rightarrow \boxed{\text{N}}$

$5\% \text{ of } 800 = \square \rightarrow \boxed{\text{I}}$

$20\% \text{ of } 45 = \square \rightarrow \boxed{\text{E}}$

$75\% \text{ of } 60 = \square \rightarrow \boxed{\text{A}}$

$10\% \text{ of } 540 = \square \rightarrow \boxed{\text{H}}$

$25\% \text{ of } 124 = \square \rightarrow \boxed{\text{L}}$

Scratch space:

CLUE 3
Order of operations

We found a locked treasure chest! To open it, we must solve the lock pins in the exact correct order of steps.

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

T			T													
57	117	6	57	117	120	6	61	35	68	6	6	65	6	35		
							T									
100	80	85	89	100	47	93	57	51	6	89	50	80	100	100	6	68

$43 + 2 \times 7 = \square \rightarrow \boxed{\text{T}}$

$76 + 2 \times 2 = \square \rightarrow \boxed{\text{O}}$

$53 + 2 \times 6 = \square \rightarrow \boxed{\text{Z}}$

$8 \times 10 - 12 = \square \rightarrow \boxed{\text{N}}$

$53 + 8 \times 5 = \square \rightarrow \boxed{\text{A}}$

$73 + 4 \times 3 = \square \rightarrow \boxed{\text{U}}$

$8 \times 10 - 29 = \square \rightarrow \boxed{\text{R}}$

$23 + 9 \times 3 = \square \rightarrow \boxed{\text{P}}$

$66 + 6 \times 9 = \square \rightarrow \boxed{\text{I}}$

$19 + 4 \times 4 = \square \rightarrow \boxed{\text{S}}$

$12 + 7 \times 7 = \square \rightarrow \boxed{\text{F}}$

$2 \times 7 - 8 = \square \rightarrow \boxed{\text{E}}$

$27 + 4 \times 5 = \square \rightarrow \boxed{\text{Y}}$

$77 + 4 \times 3 = \square \rightarrow \boxed{\text{D}}$

$90 + 5 \times 2 = \square \rightarrow \boxed{\text{L}}$

$11 \times 11 - 4 = \square \rightarrow \boxed{\text{H}}$

Scratch space:

CLUE 4 Exponents

The vines are growing faster and faster every minute! Calculate how many times they double to see how much time we have.

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

W																		
36	49	8	9	361	225	324	289	64	144	49	49	225	125	16	144	49	289	324
9	225	289	243	16	289	144	27	256	169	225	49							

$6^2 = \square \rightarrow \mathbf{W}$	$2^8 = \square \rightarrow \mathbf{V}$	$13^2 = \square \rightarrow \mathbf{I}$	$5^3 = \square \rightarrow \mathbf{T}$
$18^2 = \square \rightarrow \mathbf{D}$	$2^6 = \square \rightarrow \mathbf{G}$	$4^2 = \square \rightarrow \mathbf{H}$	$12^2 = \square \rightarrow \mathbf{R}$
$15^2 = \square \rightarrow \mathbf{N}$	$2^3 = \square \rightarrow \mathbf{F}$	$19^2 = \square \rightarrow \mathbf{U}$	$17^2 = \square \rightarrow \mathbf{A}$
$7^2 = \square \rightarrow \mathbf{E}$	$3^2 = \square \rightarrow \mathbf{O}$	$3^5 = \square \rightarrow \mathbf{S}$	$3^3 = \square \rightarrow \mathbf{P}$

Scratch space:

CLUE 5**Two-step equations - the last clue**

We need to balance the stone scales with gold coins and heavy bags to open the final secret door.

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:

$4x + 4 = 28, x = \boxed{}$

$3x + 1 = 10, x = \boxed{}$

$2x + 6 = 14, x = \boxed{}$

$4x + 11 = 43, x = \boxed{}$

$5x + 2 = 37, x = \boxed{}$

$5x + 3 = 8, x = \boxed{}$

$2x + 11 = 29, x = \boxed{}$

$6x + 9 = 69, x = \boxed{}$

$4x + 11 = 19, x = \boxed{}$

$5x + 5 = 65, x = \boxed{}$

$2x + 6 = 28, x = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain shot over the river using a rope launcher, then read a secret map with a decoder lens.
2. The villain swung over the canopy with a grappling hook, then checked their path with a pocket compass.
3. The villain scrambled up the giant trunk with climbing claws, then chatted with a robo parrot.
4. The villain swam downstream with a bamboo snorkel, then chatted with a robo parrot.
5. The villain swam downstream with a bamboo snorkel, then signaled their crew with a flash whistle.
6. The villain swung over the canopy with a grappling hook, then read a secret map with a decoder lens.
7. The villain shot over the river using a rope launcher, then checked their path with a pocket compass.
8. The villain swam downstream with a bamboo snorkel, then checked their path with a pocket compass.
9. The villain zoomed away on a zipline glider, then checked their path with a pocket compass.
10. The villain shot over the river using a rope launcher, then signaled their crew with a flash whistle.
11. The villain shot over the river using a rope launcher, then chatted with a robo parrot.
12. The villain zoomed away on a zipline glider, then blinded the guards with a smoke bomb.

Answer Key

The Golden Coconut Mystery

Culprit: Indy

bamboo snorkel · flash whistle · left handed paddle · green cap thread · allergic to pollen

Trail: Start 21 → Clue 1 17 → Clue 2 8 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Integers): "THE THIEF DOES NOT USE A SMOKE BOMB"

$(-13) + 41 = 28$ (T) · $10 - (-6) = 16$ (S) · $(-7) + 9 = 2$ (N) · $(-5) + 13 = 8$ (F) · $28 - (-2) = 30$ (M) · $(-15) + 38 = 23$ (E) · $(-10) + 28 = 18$ (B) · $16 - (-10) = 26$ (A) · $(-8) + 11 = 3$ (O) · $(-10) + 14 = 4$ (H) · $17 - (-7) = 24$ (I) · $16 - (-6) = 22$ (K) · $(-12) + 24 = 12$ (U) · $12 - (-5) = 17$ (D)

Clue 2 (Percentages): "THE THIEF SWINGS THEIR LEFT HANDED PADDLE"

5% of 940 = 47 (T) · 20% of 280 = 56 (D) · 40% of 115 = 46 (G) · 25% of 60 = 15 (S) · 10% of 370 = 37 (R) · 25% of 44 = 11 (P) · 20% of 140 = 28 (F) · 5% of 200 = 10 (W) · 50% of 2 = 1 (N) · 5% of 800 = 40 (I) · 20% of 45 = 9 (E) · 75% of 60 = 45 (A) · 10% of 540 = 54 (H) · 25% of 124 = 31 (L)

Clue 3 (Order of operations): "THE THIEF SNEEZES LOUDLY AT RED POLLEN"

$43 + 2 \times 7 = 57$ (T) · $76 + 2 \times 2 = 80$ (O) · $53 + 2 \times 6 = 65$ (Z) · $8 \times 10 - 12 = 68$ (N) · $53 + 8 \times 5 = 93$ (A) · $73 + 4 \times 3 = 85$ (U) · $8 \times 10 - 29 = 51$ (R) · $23 + 9 \times 3 = 50$ (P) · $66 + 6 \times 9 = 120$ (I) · $19 + 4 \times 4 = 35$ (S) · $12 + 7 \times 7 = 61$ (F) · $2 \times 7 - 8 = 6$ (E) · $27 + 4 \times 5 = 47$ (Y) · $77 + 4 \times 3 = 89$ (D) · $90 + 5 \times 2 = 100$ (L) · $11 \times 11 - 4 = 117$ (H)

Clue 4 (Exponents): "WE FOUND A GREEN THREAD ON A SHARP VINE"

$6^2 = 36$ (W) · $2^8 = 256$ (V) · $13^2 = 169$ (I) · $5^3 = 125$ (T) · $18^2 = 324$ (D) · $2^6 = 64$ (G) · $4^2 = 16$ (H) · $12^2 = 144$ (R) · $15^2 = 225$ (N) · $2^3 = 8$ (F) · $19^2 = 361$ (U) · $17^2 = 289$ (A) · $7^2 = 49$ (E) · $3^2 = 9$ (O) · $3^5 = 243$ (S) · $3^3 = 27$ (P)

Clue 5 (Two-step equations): surviving statement is box 5 → Indy

$4x + 4 = 28, x = 6$ · $3x + 1 = 10, x = 3$ · $2x + 6 = 14, x = 4$ · $4x + 11 = 43, x = 8$ · $5x + 2 = 37, x = 7$ · $5x + 3 = 8, x = 1$ · $2x + 11 = 29, x = 9$ · $6x + 9 = 69, x = 10$ · $4x + 11 = 19, x = 2$ · $5x + 5 = 65, x = 12$ · $2x + 6 = 28, x = 11$