



The Mystery of Treehouse Island

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

Detective: _____ Date: _____

Someone took the Golden Banana from the Treehouse Fort! Chief Ranger Pip needs your help to find the sneaky bandit. Let us look at the clues and solve the case!

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 bandit is _____

Possible suspects

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

NAME	GEAR	SKILL	DOMINANT HAND	CAP COLOR	DISTRACTION
Alex	shiny flashlight	soft step	right handed	green cap	shiny coins
Skye	shiny flashlight	quick leap	right handed	blue cap	sweet juice
Jack	trusty map	quick leap	left handed	blue cap	loud noises
Rubble	walkie talkie	high jump	left handed	blue cap	sweet juice
Indiana	climbing rope	quick leap	left handed	red cap	loud noises
Tracker	climbing rope	loud whistle	right handed	red cap	shiny coins
Annie	walkie talkie	super climb	right handed	green cap	shiny coins
Chase	pocket compass	quick leap	right handed	green cap	shiny coins
Marshall	trusty map	super climb	right handed	red cap	loud noises
Steve	pocket compass	soft step	left handed	green cap	shiny coins
Zack	walkie talkie	quick leap	right handed	red cap	loud noises
Penny	shiny flashlight	soft step	right handed	green cap	loud noises
Lara	walkie talkie	soft step	right handed	blue cap	loud noises
Ryder	climbing rope	quick leap	right handed	green cap	shiny coins
Bindi	climbing rope	high jump	right handed	green cap	shiny coins
Leo	shiny flashlight	high jump	left handed	green cap	sweet juice
Sam	climbing rope	loud whistle	left handed	blue cap	sweet juice
Diego	shiny flashlight	quick leap	right handed	red cap	shiny coins
Zuma	walkie talkie	super climb	left handed	green cap	loud noises
Cody	walkie talkie	super climb	right handed	red cap	loud noises
Rocky	shiny flashlight	super climb	right handed	blue cap	shiny coins

CLUE 1 Place value

Chief Ranger Pip finds a locked box with code blocks. The tens block and ones block show us the first clue.

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

T																	
87	34	76	67	16	97	33	51	87	33	59	76	92	97	59	87	33	59
T																	
87	34	76	34	51	80	34	52	83	94	72							

What number has 8 tens and 7 ones? → **T**

What number has 3 tens and 4 ones? → **H**

What number has 8 tens and 0 ones? → **G**

What number has 9 tens and 7 ones? → **N**

What number has 5 tens and 9 ones? → **O**

What number has 5 tens and 1 one? → **I**

What number has 8 tens and 3 ones? → **U**

What number has 5 tens and 2 ones? → **J**

What number has 6 tens and 7 ones? → **B**

What number has 7 tens and 6 ones? → **E**

What number has 1 ten and 6 ones? → **A**

What number has 7 tens and 2 ones? → **P**

What number has 9 tens and 2 ones? → **S**

What number has 3 tens and 3 ones? → **D**

What number has 9 tens and 4 ones? → **M**

Scratch space:

CLUE 2 Addition

We find two bags of shiny coins on the trail. Let us add them together to see what the bandit dropped.

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

T									T										
96	45	43	38	55	80	33	52	96	61	29	43	29	96	45	43	52	59		

				T					
59	52	95	45	96	45	55	80	33	

$31 + 65 = \square \rightarrow$ T	$15 + 14 = \square \rightarrow$ S	$15 + 30 = \square \rightarrow$ H
$16 + 17 = \square \rightarrow$ D	$20 + 32 = \square \rightarrow$ I	$20 + 23 = \square \rightarrow$ E
$33 + 28 = \square \rightarrow$ U	$36 + 23 = \square \rightarrow$ R	$54 + 41 = \square \rightarrow$ G
$42 + 38 = \square \rightarrow$ N	$11 + 27 = \square \rightarrow$ B	$26 + 29 = \square \rightarrow$ A

Scratch space:

CLUE 3

Subtraction

The bandit dropped some bananas from their pack. We subtract the lost ones to find the path.

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

T								T									
47	53	70	79	27	50	70	59	47	28	63	63	70	14	16	79		

59	53	82	72	79	39	28	82	72	59	

$60 - 13 = \square \rightarrow \boxed{\text{T}}$

$81 - 11 = \square \rightarrow \boxed{\text{E}}$

$66 - 16 = \square \rightarrow \boxed{\text{R}}$

$109 - 30 = \square \rightarrow \boxed{\text{Y}}$

$96 - 14 = \square \rightarrow \boxed{\text{I}}$

$43 - 4 = \square \rightarrow \boxed{\text{C}}$

$42 - 15 = \square \rightarrow \boxed{\text{A}}$

$75 - 12 = \square \rightarrow \boxed{\text{P}}$

$97 - 38 = \square \rightarrow \boxed{\text{S}}$

$107 - 35 = \square \rightarrow \boxed{\text{N}}$

$35 - 19 = \square \rightarrow \boxed{\text{B}}$

$33 - 19 = \square \rightarrow \boxed{\text{D}}$

$57 - 4 = \square \rightarrow \boxed{\text{H}}$

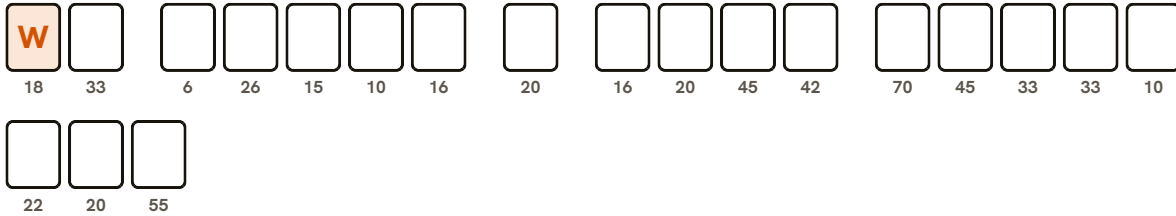
$38 - 10 = \square \rightarrow \boxed{\text{O}}$

Scratch space:

CLUE 4 Skip counting

Look at the footprints on the muddy path. They jump by twos. Count them to find the hidden trail.

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



Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 → **W**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **N**

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 → **U**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 → **G**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **D**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 → **C**

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

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **F**

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

Scratch space:

CLUE 5**Missing addends - the last clue**

We need ten camp flags but only find six. Find the missing count to open the last gate.

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:

$1 + \underline{\quad} = 12$

$4 + \underline{\quad} = 13$

$8 + \underline{\quad} = 9$

$4 + \underline{\quad} = 16$

$7 + \underline{\quad} = 14$

$4 + \underline{\quad} = 9$

$3 + \underline{\quad} = 6$

$10 + \underline{\quad} = 14$

$3 + \underline{\quad} = 5$

$7 + \underline{\quad} = 13$

$5 + \underline{\quad} = 15$

Step 2 - cross out the sentence with each answer:

1. The villain talks on a walkie talkie, then does a super climb.
2. The villain shines a shiny flashlight, then makes a quick leap.
3. The villain talks on a walkie talkie, then blows a loud whistle.
4. The villain checks a pocket compass, then takes a soft step.
5. The villain uses a climbing rope, then takes a soft step.
6. The villain reads a trusty map, then takes a soft step.
7. The villain reads a trusty map, then does a super climb.
8. The villain checks a pocket compass, then makes a quick leap.
9. The villain uses a climbing rope, then makes a quick leap.
10. The villain talks on a walkie talkie, then does a high jump.
11. The villain shines a shiny flashlight, then takes a soft step.
12. The villain shines a shiny flashlight, then does a high jump.

Answer Key

The Mystery of Treehouse Island

Culprit: Chase

pocket compass · quick leap · right handed · green cap · shiny coins

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE BANDIT DOES NOT DO THE HIGH JUMP"

What number has 8 tens and 7 ones? = 87 (T) · What number has 3 tens and 4 ones? = 34 (H) · What number has 8 tens and 0 ones? = 80 (G) · What number has 9 tens and 7 ones? = 97 (N) · What number has 5 tens and 9 ones? = 59 (O) · What number has 5 tens and 1 one? = 51 (I) · What number has 8 tens and 3 ones? = 83 (U) · What number has 5 tens and 2 ones? = 52 (J) · What number has 6 tens and 7 ones? = 67 (B) · What number has 7 tens and 6 ones? = 76 (E) · What number has 1 ten and 6 ones? = 16 (A) · What number has 7 tens and 2 ones? = 72 (P) · What number has 9 tens and 2 ones? = 92 (S) · What number has 3 tens and 3 ones? = 33 (D) · What number has 9 tens and 4 ones? = 94 (M)

Clue 2 (Addition): "THE BANDIT USES THEIR RIGHT HAND"

$31 + 65 = 96$ (T) · $15 + 14 = 29$ (S) · $15 + 30 = 45$ (H) · $16 + 17 = 33$ (D) · $20 + 32 = 52$ (I) · $20 + 23 = 43$ (E) · $33 + 28 = 61$ (U) · $36 + 23 = 59$ (R) · $54 + 41 = 95$ (G) · $42 + 38 = 80$ (N) · $11 + 27 = 38$ (B) · $26 + 29 = 55$ (A)

Clue 3 (Subtraction): "THEY ARE STOPPED BY SHINY COINS"

$60 - 13 = 47$ (T) · $81 - 11 = 70$ (E) · $66 - 16 = 50$ (R) · $109 - 30 = 79$ (Y) · $96 - 14 = 82$ (I) · $43 - 4 = 39$ (C) · $42 - 15 = 27$ (A) · $75 - 12 = 63$ (P) · $97 - 38 = 59$ (S) · $107 - 35 = 72$ (N) · $35 - 19 = 16$ (B) · $33 - 19 = 14$ (D) · $57 - 4 = 53$ (H) · $38 - 10 = 28$ (O)

Clue 4 (Skip counting): "WE FOUND A DARK GREEN CAP"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, __, 21, 24 = 18 (W) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (P) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, __, 36, 39 = 33 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, __, 22, 24 = 20 (A) · Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 = 15 (U) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, __, 80, 90 = 70 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (K) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, __, 24, 26 = 22 (C) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (R) · Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 = 6 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, __, 28, 30 = 26 (O)

Clue 5 (Missing addends): surviving statement is box 8 → Chase

$1 + \underline{\quad} = 12$ = 11 · $4 + \underline{\quad} = 13$ = 9 · $8 + \underline{\quad} = 9$ = 1 · $4 + \underline{\quad} = 16$ = 12 · $7 + \underline{\quad} = 14$ = 7 · $4 + \underline{\quad} = 9$ = 5 · $3 + \underline{\quad} = 6$ = 3 · $10 + \underline{\quad} = 14$ = 4 · $3 + \underline{\quad} = 5$ = 2 · $7 + \underline{\quad} = 13$ = 6 · $5 + \underline{\quad} = 15$ = 10