The Island Treehouse Mystery

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

Detective: _____ **Date:** _____

Someone hid the golden scout trophy inside the treehouse! Help the Island Explorers find out who took it before sunset.

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 island prankster is _____

Possible suspects

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

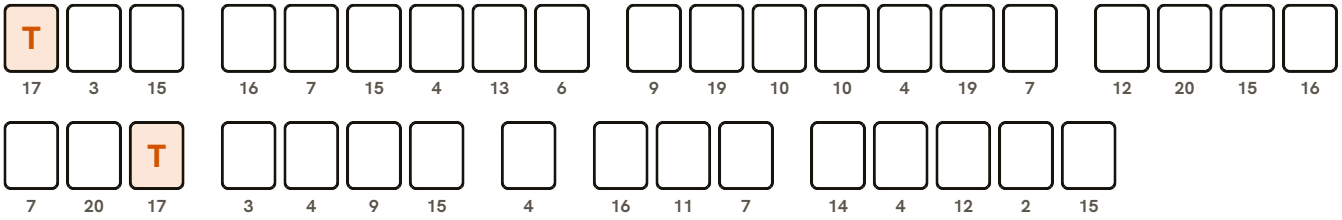
NAME	ISLAND TOOL	BADGE	WATCH HAND	CAP COLOR	SNACK COUNTER
Cole	torch beam	star badge	wears watch on left wrist	red cap	scared of crunchy apples
Ava	torch beam	star badge	wears watch on left wrist	blue cap	scared of sour lemons
Max	rope launcher	moon badge	wears watch on right wrist	green cap	scared of crunchy apples
Luke	torch beam	leaf badge	wears watch on left wrist	red cap	scared of crunchy apples
Jack	torch beam	star badge	wears watch on left wrist	red cap	scared of sour lemons
Leo	rope launcher	star badge	wears watch on right wrist	blue cap	scared of crunchy apples
Ivy	rope launcher	star badge	wears watch on right wrist	green cap	scared of crunchy apples
Chloe	rope launcher	wave badge	wears watch on right wrist	red cap	scared of crunchy apples
Maya	bamboo net	moon badge	wears watch on right wrist	green cap	scared of salty pretzels
Toby	glider wings	leaf badge	wears watch on right wrist	red cap	scared of sour lemons
Mia	rope launcher	wave badge	wears watch on left wrist	blue cap	scared of sour lemons
Aria	bamboo net	leaf badge	wears watch on left wrist	red cap	scared of crunchy apples
Sam	glider wings	wave badge	wears watch on right wrist	blue cap	scared of sour lemons
Kai	torch beam	leaf badge	wears watch on right wrist	blue cap	scared of sour lemons
Owen	torch beam	leaf badge	wears watch on left wrist	green cap	scared of crunchy apples
Nora	compass map	moon badge	wears watch on left wrist	red cap	scared of crunchy apples
Eli	bamboo net	wave badge	wears watch on right wrist	red cap	scared of crunchy apples
Noah	glider wings	star badge	wears watch on left wrist	blue cap	scared of crunchy apples
Ella	compass map	leaf badge	wears watch on right wrist	blue cap	scared of salty pretzels
Lily	rope launcher	sun badge	wears watch on left wrist	red cap	scared of crunchy apples
Finn	torch beam	star badge	wears watch on right wrist	blue cap	scared of sour lemons

make your own at mathcrackers.com

CLUE 1 Addition

We gathered up all the lost trail maps. Let us add them together to find the first clue.

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



11 + 6 = ☐ → T

1 + 1 = ☐ → G

7 + 8 = ☐ → E

2 + 2 = ☐ → A

4 + 8 = ☐ → D

6 + 7 = ☐ → K

13 + 7 = ☐ → O

4 + 12 = ☐ → S

6 + 8 = ☐ → B

5 + 2 = ☐ → N

2 + 1 = ☐ → H

3 + 8 = ☐ → U

2 + 4 = ☐ → Y

2 + 7 = ☐ → V

6 + 13 = ☐ → I

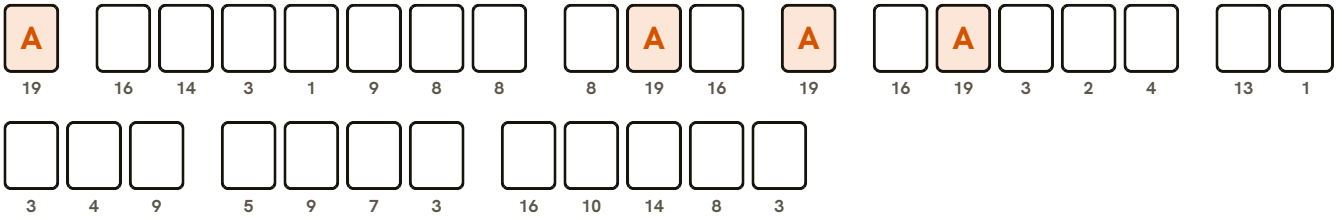
5 + 5 = ☐ → L

Scratch space:

CLUE 2 Subtraction

Some gear went missing from the camp chest. Subtract the lost items to see what is left.

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



20 - 1 = ☐ → A

17 - 8 = ☐ → E

6 - 4 = ☐ → C

19 - 6 = ☐ → O

18 - 4 = ☐ → I

3 - 2 = ☐ → N

6 - 2 = ☐ → H

8 - 3 = ☐ → L

15 - 8 = ☐ → F

18 - 2 = ☐ → W

5 - 2 = ☐ → T

16 - 6 = ☐ → R

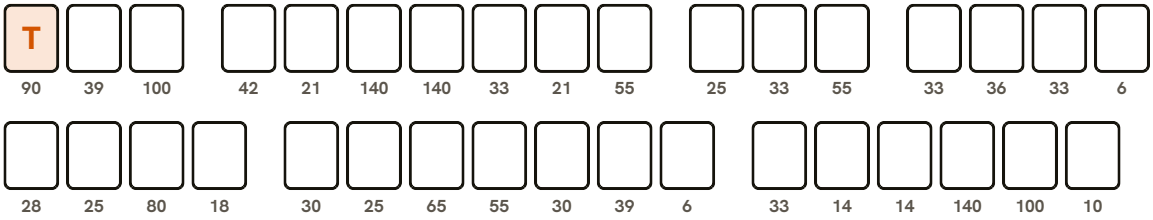
10 - 2 = ☐ → S

Scratch space:

CLUE 3 Skip counting

We found rows of footprints in the sand. Let us skip count by fives to track the trail.

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



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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 ☐ → R

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 ☐ → I

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 ☐ → W

Skip-count by 10s. Fill the blank: 10, 20, ___, 40, 50 ☐ → C

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 ☐ → H

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → O

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 ☐ → E

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 ☐ → L

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 ☐ → S

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 ☐ → U

Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 ☐ → Y

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, ___, 20, 22 ☐ → **M**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → **P**

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

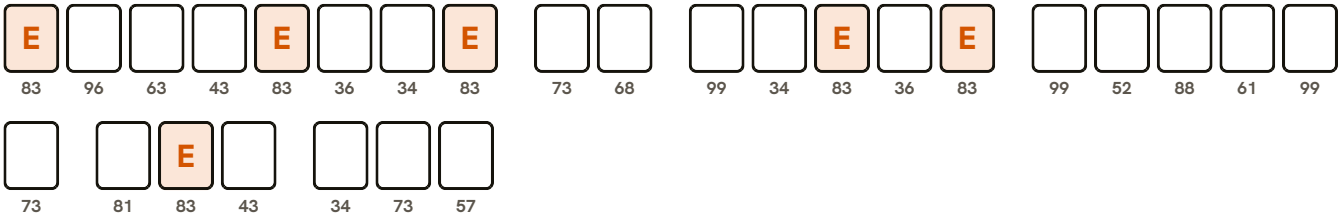
Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 ☐ → **N**

Scratch space:

CLUE 4 Place value

The digital scout sign flashes numbers in tens and ones. Look closely at the place value to read the message.

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



What number has 8 tens and 3 ones? ☐ → E

What number has 8 tens and 1 one? ☐ → R

What number has 5 tens and 7 ones? ☐ → P

What number has 5 tens and 2 ones? ☐ → H

What number has 7 tens and 3 ones? ☐ → A

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

What number has 3 tens and 6 ones? ☐ → N

What number has 6 tens and 3 ones? ☐ → I

What number has 3 tens and 4 ones? ☐ → C

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

What number has 6 tens and 1 one? ☐ → W

What number has 4 tens and 3 ones? ☐ → D

What number has 9 tens and 9 ones? ☐ → S

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

Scratch space:

CLUE 5 Missing addends - the last clue

We have eight coconut bowls but we need twelve in total. Find the missing number to solve the last puzzle.

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:

4 + ___ = 9 ☐	6 + ___ = 14 ☐	5 + ___ = 17 ☐	4 + ___ = 15 ☐
9 + ___ = 13 ☐	2 + ___ = 5 ☐	1 + ___ = 7 ☐	6 + ___ = 15 ☐
7 + ___ = 14 ☐	1 + ___ = 2 ☐	8 + ___ = 10 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain soared on glider wings, then showed off a star badge.
2. The villain soared on glider wings, then flashed a sun badge.
3. The villain fired the rope launcher, then wore a moon badge.
4. The villain shined the torch beam, then wore a moon badge.
5. The villain shined the torch beam, then showed off a star badge.
6. The villain checked the compass map, then showed off a star badge.
7. The villain fired the rope launcher, then pinned on a leaf badge.
8. The villain threw the bamboo net, then pinned on a leaf badge.
9. The villain threw the bamboo net, then showed off a star badge.
10. The villain shined the torch beam, then pinned on a leaf badge.
11. The villain fired the rope launcher, then flashed a sun badge.
12. The villain checked the compass map, then wore a moon badge.

TEACHER / PARENT

Answer Key

The Island Treehouse Mystery

Culprit: Luke

torch beam · leaf badge · wears watch on left wrist · red cap · scared of crunchy apples

Trail: Start 21 → Clue 1 20 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SNEAKY VILLAIN DOES NOT HAVE A SUN BADGE"

11 + 6 = 17 (T) · 1 + 1 = 2 (G) · 7 + 8 = 15 (E) · 2 + 2 = 4 (A) · 4 + 8 = 12 (D) · 6 + 7 = 13 (K) · 13 + 7 = 20 (O) · 4 + 12 = 16 (S) · 6 + 8 = 14 (B) · 5 + 2 = 7 (N) · 2 + 1 = 3 (H) · 3 + 8 = 11 (U) · 2 + 4 = 6 (Y) · 2 + 7 = 9 (V) · 6 + 13 = 19 (I) · 5 + 5 = 10 (L)

Clue 2 (Subtraction): "A WITNESS SAW A WATCH ON THE LEFT WRIST"

20 - 1 = 19 (A) · 17 - 8 = 9 (E) · 6 - 4 = 2 (C) · 19 - 6 = 13 (O) · 18 - 4 = 14 (I) · 3 - 2 = 1 (N) · 6 - 2 = 4 (H) · 8 - 3 = 5 (L) · 15 - 8 = 7 (F) · 18 - 2 = 16 (W) · 5 - 2 = 3 (T) · 16 - 6 = 10 (R) · 10 - 2 = 8 (S)

Clue 3 (Skip counting): "THE VILLAIN RAN AWAY FROM CRUNCHY APPLES"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, ___, 100, 110 = 90 (T) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 = 25 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, ___, 24, 27 = 21 (I) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (W) · Skip-count by 10s. Fill the blank: 10, 20, ___, 40, 50 = 30 (C) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 = 39 (H) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (O) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 = 140 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, ___, 12, 14 = 10 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (F) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 = 65 (U) · Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (Y) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 = 42 (V) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, ___, 20, 22 = 18 (M) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (P) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ___, 60, 65 = 55 (N)

Clue 4 (Place value): "EVIDENCE AT SCENE SHOWS A RED CAP"

What number has 8 tens and 3 ones? = 83 (E) · What number has 8 tens and 1 one? = 81 (R) · What number has 5 tens and 7 ones? = 57 (P) · What number has 5 tens and 2 ones? = 52 (H) · What number has 7 tens and 3 ones? = 73 (A) · What number has 8 tens and 8 ones? = 88 (O) · What number has 3 tens and 6 ones? = 36 (N) · What number has 6 tens and 3 ones? = 63 (I) · What number has 3 tens and 4 ones? = 34 (C) · What number has 9 tens and 6 ones? = 96 (V) · What number has 6 tens and 1 one? = 61 (W) · What number has 4 tens and 3 ones? = 43 (D) · What number has 9 tens and 9 ones? = 99 (S) · What number has 6 tens and 8 ones? = 68 (T)

Clue 5 (Missing addends): surviving statement is box 10 → Luke

4 + ___ = 9 = 5 · 6 + ___ = 14 = 8 · 5 + ___ = 17 = 12 · 4 + ___ = 15 = 11 · 9 + ___ = 13 = 4 · 2 + ___ = 5 = 3 · 1 + ___ = 7 = 6 · 6 + ___ = 15 = 9 · 7 + ___ = 14 = 7 · 1 + ___ = 2 = 1 · 8 + ___ = 10 = 2