The Case of the Trail Sneak

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

Detective: _____ **Date:** _____

Camp Wildwood woke up to big trouble. Someone snuck off with Ranger Pop and left only muddy tracks by the tents. Now it is up to you to follow the clues and catch the Trail Sneak.

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 Trail Sneak is _____

Possible suspects

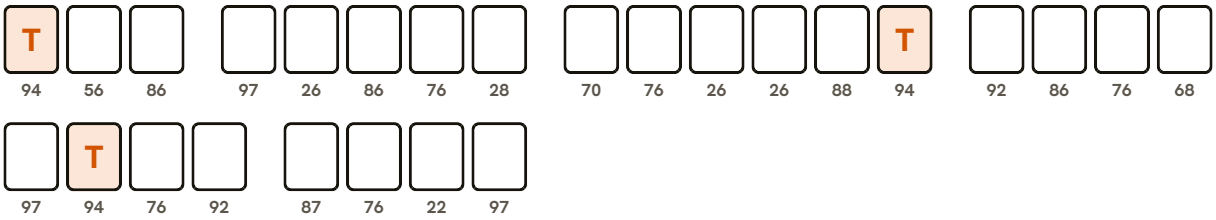
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	WAY TO TRAVEL	CAMP SKILL	EXPLORER	HAIR COLOR	WEAK SPOT
Pia	paddles a canoe	ties tricky knots	a girl	red hair	sneezes at dust
Mia	glides on a kite	digs secret tunnels	a girl	red hair	ticklish feet
Zoe	climbs tall cliffs	ties tricky knots	a girl	black hair	sneezes at dust
Leo	glides on a kite	ties tricky knots	a girl	red hair	scared of frogs
Hana	glides on a kite	whistles bird calls	a girl	red hair	sneezes at dust
Ruby	glides on a kite	ties tricky knots	a girl	brown hair	scared of frogs
Rosa	climbs tall cliffs	lights a lantern	a girl	black hair	ticklish feet
Lily	glides on a kite	digs secret tunnels	a girl	black hair	scared of frogs
Sam	swings on vines	ties tricky knots	a girl	red hair	ticklish feet
Nora	climbs tall cliffs	ties tricky knots	a girl	red hair	sneezes at dust
Cole	gallops on a pony	whistles bird calls	a boy	red hair	sneezes at dust
Tariq	gallops on a pony	digs secret tunnels	a girl	black hair	sneezes at dust
Max	climbs tall cliffs	ties tricky knots	a boy	brown hair	ticklish feet
Ivy	paddles a canoe	digs secret tunnels	a girl	red hair	ticklish feet
Eli	climbs tall cliffs	reads star maps	a girl	red hair	sneezes at dust
Beck	gallops on a pony	whistles bird calls	a boy	black hair	sneezes at dust
Maya	climbs tall cliffs	reads star maps	a boy	red hair	ticklish feet
Ben	swings on vines	lights a lantern	a girl	red hair	sneezes at dust
Gus	climbs tall cliffs	whistles bird calls	a boy	red hair	sneezes at dust
Theo	gallops on a pony	digs secret tunnels	a boy	black hair	scared of frogs
Finn	paddles a canoe	whistles bird calls	a boy	red hair	ticklish feet

CLUE 1 Addition

> The Trail Sneak grabbed Ranger Pop at dawn. Add up the muddy tracks by each tent to see which path the sneak took.

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



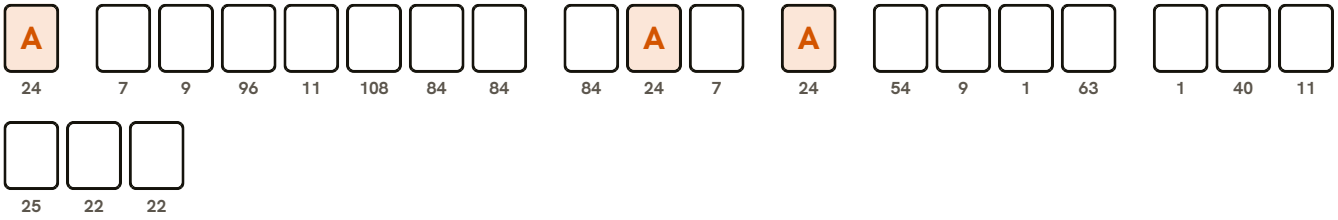
63 + 31 =		T	43 + 45 =		O	13 + 13 =		N
6 + 16 =		P	57 + 30 =		M	28 + 40 =		D
14 + 14 =		K	40 + 46 =		E	30 + 40 =		C
65 + 32 =		S	49 + 27 =		A	60 + 32 =		R
23 + 33 =		H						

Scratch space:

CLUE 2 Multiplication facts (1-12)

> The sneak left footprints in neat rows. Count the rows and how many are in each row to find the next clue.

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



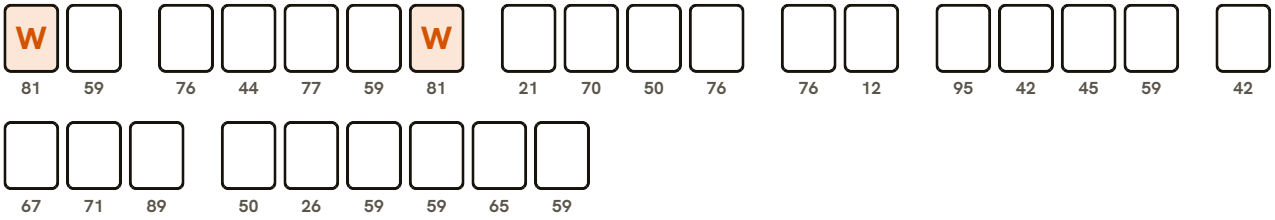
3 × 8 =		A	7 × 12 =		S	9 × 12 =		E
11 × 1 =		N	2 × 11 =		F	1 × 7 =		W
5 × 8 =		U	8 × 12 =		T	6 × 9 =		G
5 × 5 =		O	9 × 7 =		L	1 × 9 =		I
1 × 1 =		R						

Scratch space:

CLUE 3 Place value (tens & ones)

A torn map has a big number on it. Look at the tens and the ones to read its secret.

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



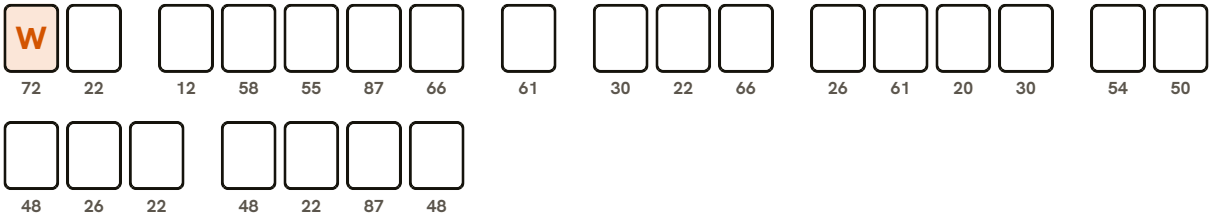
What number has 8 tens and 1 one?		W	What number has 2 tens and 6 ones?		N	What number has 7 tens and 0 ones?		U
What number has 5 tens and 9 ones?		E	What number has 7 tens and 7 ones?		R	What number has 5 tens and 0 ones?		S
What number has 1 ten and 2 ones?		O	What number has 8 tens and 9 ones?		G	What number has 7 tens and 6 ones?		T
What number has 4 tens and 2 ones?		A	What number has 7 tens and 1 one?		I	What number has 4 tens and 4 ones?		H
What number has 4 tens and 5 ones?		K	What number has 9 tens and 5 ones?		M	What number has 6 tens and 7 ones?		B
What number has 2 tens and 1 one?		D	What number has 6 tens and 5 ones?		Z			

Scratch space:

CLUE 4 Subtraction

Some food packs are gone from the shelf. Take away to learn how many the sneak grabbed.

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



89 - 17 =		W	22 - 10 =		F	33 - 13 =		I
73 - 23 =		Y	60 - 30 =		R	65 - 4 =		A
73 - 7 =		D	107 - 20 =		N	77 - 23 =		B
50 - 24 =		H	75 - 27 =		T	76 - 18 =		O
78 - 23 =		U	39 - 17 =		E			

Scratch space:

CLUE 5 Missing addends - the last clue

> We need a full set of ropes to climb after the sneak. Find how many more ropes we must add.

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:

10 + ___ = 20 ☐	9 + ___ = 20 ☐	2 + ___ = 14 ☐
3 + ___ = 7 ☐	9 + ___ = 18 ☐	10 + ___ = 18 ☐
3 + ___ = 10 ☐	3 + ___ = 8 ☐	8 + ___ = 14 ☐
2 + ___ = 5 ☐	7 + ___ = 9 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain swings in on a vine, then lights a lantern to see.
2. The villain swings in on a vine, then reads the star map.
3. The villain glides in on a kite, then ties up the gate.
4. The villain gallops in on a pony, then whistles a fake bird call.
5. The villain paddles up in a canoe, then digs under the fence.
6. The villain gallops in on a pony, then reads the star map.
7. The villain swings in on a vine, then whistles a fake bird call.
8. The villain climbs down a cliff, then whistles a fake bird call.
9. The villain swings in on a vine, then digs under the fence.
10. The villain glides in on a kite, then whistles a fake bird call.
11. The villain paddles up in a canoe, then ties up the gate.
12. The villain climbs down a cliff, then ties up the gate.

TEACHER / PARENT

Answer Key

The Case of the Trail Sneak

Culprit: Ben

swings on vines · lights a lantern · a girl · red hair · sneezes at dust

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SNEAK CANNOT READ STAR MAPS"

63 + 31 = 94 (T) · 43 + 45 = 88 (O) · 13 + 13 = 26 (N) · 6 + 16 = 22 (P) · 57 + 30 = 87 (M) · 28 + 40 = 68 (D) · 14 + 14 = 28 (K) · 40 + 46 = 86 (E) · 30 + 40 = 70 (C) · 65 + 32 = 97 (S) · 49 + 27 = 76 (A) · 60 + 32 = 92 (R) · 23 + 33 = 56 (H)

Clue 2 (Multiplication facts (1-12)): "A WITNESS SAW A GIRL RUN OFF"

3 × 8 = 24 (A) · 7 × 12 = 84 (S) · 9 × 12 = 108 (E) · 11 × 1 = 11 (N) · 2 × 11 = 22 (F) · 1 × 7 = 7 (W) · 5 × 8 = 40 (U) · 8 × 12 = 96 (T) · 6 × 9 = 54 (G) · 5 × 5 = 25 (O) · 9 × 7 = 63 (L) · 1 × 9 = 9 (I) · 1 × 1 = 1 (R)

Clue 3 (Place value (tens & ones)): "WE THREW DUST TO MAKE A BIG SNEEZE"

What number has 8 tens and 1 one? = 81 (W) · What number has 2 tens and 6 ones? = 26 (N) · What number has 7 tens and 0 ones? = 70 (U) · What number has 5 tens and 9 ones? = 59 (E) · What number has 7 tens and 7 ones? = 77 (R) · What number has 5 tens and 0 ones? = 50 (S) · What number has 1 ten and 2 ones? = 12 (O) · What number has 8 tens and 9 ones? = 89 (G) · What number has 7 tens and 6 ones? = 76 (T) · What number has 4 tens and 2 ones? = 42 (A) · What number has 7 tens and 1 one? = 71 (I) · What number has 4 tens and 4 ones? = 44 (H) · What number has 4 tens and 5 ones? = 45 (K) · What number has 9 tens and 5 ones? = 95 (M) · What number has 6 tens and 7 ones? = 67 (B) · What number has 2 tens and 1 one? = 21 (D) · What number has 6 tens and 5 ones? = 65 (Z)

Clue 4 (Subtraction): "WE FOUND A RED HAIR BY THE TENT"

89 - 17 = 72 (W) · 22 - 10 = 12 (F) · 33 - 13 = 20 (I) · 73 - 23 = 50 (Y) · 60 - 30 = 30 (R) · 65 - 4 = 61 (A) · 73 - 7 = 66 (D) · 107 - 20 = 87 (N) · 77 - 23 = 54 (B) · 50 - 24 = 26 (H) · 75 - 27 = 48 (T) · 76 - 18 = 58 (O) · 78 - 23 = 55 (U) · 39 - 17 = 22 (E)

Clue 5 (Missing addends): surviving statement is box 1 → Ben

10 + ___ = 20 = 10 · 9 + ___ = 20 = 11 · 2 + ___ = 14 = 12 · 3 + ___ = 7 = 4 · 9 + ___ = 18 = 9 · 10 + ___ = 18 = 8 · 3 + ___ = 10 = 7 · 3 + ___ = 8 = 5 · 8 + ___ = 14 = 6 · 2 + ___ = 5 = 3 · 7 + ___ = 9 = 2