



Mystery at Treehouse Base

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 1-2

Detective: _____ Date: _____

A sneaky bandit took the golden map from the Treehouse Base! Head Scout Pip needs your help. Solve the math clues to catch the villain.

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	MAIN TOOL	GEAR	HANDEDNESS	HAIR STYLE	WEAKNESS
Clara	smoke bomb	walkie talkie	right handed	blonde braid	loud whistle
Eli	stealth boots	flash beam	right handed	brown spikes	itchy mud
Ella	smoke bomb	walkie talkie	right handed	blonde braid	bright light
Nora	grappling hook	metal shield	right handed	blonde braid	bright light
Max	stealth boots	night goggles	left handed	blonde braid	bright light
Luke	grappling hook	walkie talkie	right handed	blonde braid	bright light
Grace	grappling hook	walkie talkie	left handed	blonde braid	bright light
Leo	grappling hook	night goggles	left handed	red curls	itchy mud
Chloe	smoke bomb	compass watch	left handed	brown spikes	bright light
Ivy	stealth boots	flash beam	right handed	red curls	loud whistle
Sam	smoke bomb	night goggles	right handed	blonde braid	bright light
Noah	rope launcher	walkie talkie	right handed	blonde braid	loud whistle
Lily	glider wings	flash beam	left handed	brown spikes	bright light
Ava	stealth boots	compass watch	right handed	blonde braid	loud whistle
Mia	grappling hook	compass watch	right handed	blonde braid	loud whistle
Ruby	rope launcher	metal shield	right handed	red curls	itchy mud
Ben	grappling hook	metal shield	right handed	red curls	loud whistle
Zoe	rope launcher	metal shield	left handed	blonde braid	loud whistle
Owen	stealth boots	walkie talkie	left handed	brown spikes	itchy mud
Liam	grappling hook	walkie talkie	right handed	blonde braid	loud whistle
Finn	grappling hook	night goggles	right handed	blonde braid	loud whistle

Rounding

The scanner radar rounds distance to the nearest hundred.

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

The diagram illustrates the decomposition of 1000 into 700 and 300, and then 300 into 200 and 100, using place value blocks. The top row shows 1000 as 7 hundreds (700) and 3 hundreds (300). The bottom row shows 300 as 2 hundreds (200) and 1 hundred (100). The blocks are labeled with their respective values: 700, 300, 200, and 100.

Round 736 to the nearest hundred $\rightarrow$ **T**

Round 292 to the nearest ten $\rightarrow$ **E**

Round 2,575 to the nearest thousand $\rightarrow$ **W**

Round 3,731 to the nearest hundred $\rightarrow$ **B**

Round 72 to the nearest ten $\rightarrow$ **M**

Round 170 to the nearest hundred $\rightarrow$ **U**

Round 336 to the nearest hundred $\rightarrow$ **S**

Round 21 to the nearest ten $\rightarrow$

Round 2,311 to the nearest thousand $\rightarrow$ **D**

Round 26 to the nearest ten $\rightarrow$ **C**

Round 231 to the nearest ten $\rightarrow$ **P**

Round 127 to the nearest ten $\rightarrow$ **N**

Round 6,554 to the nearest thousand → **A**

Round 8,571 to the nearest thousand $\rightarrow$

Round 94 to the nearest ten $\rightarrow$ **H**

Scratch space:

CLUE 2

Addition

We counted all the supply crates left in the camp store.

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

W									W					
2031	6819	7656	3922	6296	5637	5637	5637	7307	2031	2267	6819	6169	7953	7656

7953	7307	3922	9291	6296	9291	7656	2267	7307	9027	2573	5637

$1285 + 746 = \square \rightarrow \boxed{W}$

$3666 + 3990 = \square \rightarrow \boxed{T}$

$3932 + 2887 = \square \rightarrow \boxed{I}$

$3896 + 5395 = \square \rightarrow \boxed{D}$

$993 + 1580 = \square \rightarrow \boxed{K}$

$4055 + 2114 = \square \rightarrow \boxed{G}$

$2521 + 1401 = \square \rightarrow \boxed{N}$

$6139 + 2888 = \square \rightarrow \boxed{C}$

$2672 + 5281 = \square \rightarrow \boxed{H}$

$4287 + 3020 = \square \rightarrow \boxed{A}$

$2662 + 3634 = \square \rightarrow \boxed{E}$

$3622 + 2015 = \square \rightarrow \boxed{S}$

$962 + 1305 = \square \rightarrow \boxed{R}$

Scratch space:

CLUE 3

Subtraction

We checked how many trail maps were missing from the chest.

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

T									T										
2737	6467	1673	3466	8854	2534	4654	7909	2737	3594	4898	1673	4654	3594	2057	2775	7427			

									T		
4898	2775	3705	4654	4753	6467	7909	7935	2737	4898	1673	

$6436 - 3699 = \square \rightarrow \boxed{\text{T}}$

$3497 - 1824 = \square \rightarrow \boxed{\text{E}}$

$7658 - 4064 = \square \rightarrow \boxed{\text{F}}$

$6036 - 3261 = \square \rightarrow \boxed{\text{O}}$

$7855 - 3201 = \square \rightarrow \boxed{\text{D}}$

$10342 - 2407 = \square \rightarrow \boxed{\text{S}}$

$4484 - 1950 = \square \rightarrow \boxed{\text{N}}$

$6262 - 1364 = \square \rightarrow \boxed{\text{L}}$

$8996 - 142 = \square \rightarrow \boxed{\text{A}}$

$3859 - 393 = \square \rightarrow \boxed{\text{B}}$

$9798 - 1889 = \square \rightarrow \boxed{\text{I}}$

$4799 - 2742 = \square \rightarrow \boxed{\text{R}}$

$6135 - 1382 = \square \rightarrow \boxed{\text{W}}$

$3738 - 33 = \square \rightarrow \boxed{\text{U}}$

$8588 - 2121 = \square \rightarrow \boxed{\text{H}}$

$9835 - 2408 = \square \rightarrow \boxed{\text{M}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

We lined up the search lantern packs in equal rows.

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

W																	
44	32	144	9	33	28	56	24	70	9	28	56	32	24	25	40	14	56

40	22	22	6	32	108	100	32	28	32

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

$4 \times 8 = \square \rightarrow \boxed{\text{E}}$

$11 \times 3 = \square \rightarrow \boxed{\text{U}}$

$5 \times 5 = \square \rightarrow \boxed{\text{R}}$

$3 \times 8 = \square \rightarrow \boxed{\text{B}}$

$9 \times 1 = \square \rightarrow \boxed{\text{O}}$

$8 \times 7 = \square \rightarrow \boxed{\text{D}}$

$7 \times 2 = \square \rightarrow \boxed{\text{I}}$

$7 \times 10 = \square \rightarrow \boxed{\text{L}}$

$7 \times 4 = \square \rightarrow \boxed{\text{N}}$

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

$10 \times 10 = \square \rightarrow \boxed{\text{C}}$

$9 \times 12 = \square \rightarrow \boxed{\text{S}}$

$11 \times 2 = \square \rightarrow \boxed{\text{T}}$

$1 \times 6 = \square \rightarrow \boxed{\text{H}}$

$4 \times 10 = \square \rightarrow \boxed{\text{A}}$

Scratch space:

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

We shared the rescue snacks equally among the scout teams.

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:

$48 \div 6 = \boxed{}$

$2 \div 1 = \boxed{}$

$5 \div 1 = \boxed{}$

$144 \div 12 = \boxed{}$

$7 \div 1 = \boxed{}$

$7 \div 7 = \boxed{}$

$6 \div 2 = \boxed{}$

$90 \div 10 = \boxed{}$

$70 \div 7 = \boxed{}$

$42 \div 7 = \boxed{}$

$32 \div 8 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain flew with glider wings, then wore night goggles.
2. The villain used a grappling hook, then wore night goggles.
3. The villain snuck in stealth boots, then checked a compass watch.
4. The villain shot a rope launcher, then shined a flash beam.
5. The villain shot a rope launcher, then used a walkie talkie.
6. The villain snuck in stealth boots, then used a walkie talkie.
7. The villain flew with glider wings, then shined a flash beam.
8. The villain threw a smoke bomb, then used a walkie talkie.
9. The villain threw a smoke bomb, then held a metal shield.
10. The villain snuck in stealth boots, then shined a flash beam.
11. The villain used a grappling hook, then used a walkie talkie.
12. The villain threw a smoke bomb, then wore night goggles.

Answer Key

Mystery at Treehouse Base

Culprit: Liam

grappling hook · walkie talkie · right handed · blonde braid · loud whistle

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE BANDIT DOES NOT USE A COMPASS WATCH"

Round 736 to the nearest hundred = 700 (T) · Round 292 to the nearest ten = 290 (E) · Round 2,575 to the nearest thousand = 3000 (W) · Round 3,731 to the nearest hundred = 3700 (B) · Round 72 to the nearest ten = 70 (M) · Round 170 to the nearest hundred = 200 (U) · Round 336 to the nearest hundred = 300 (S) · Round 21 to the nearest ten = 20 (I) · Round 2,311 to the nearest thousand = 2000 (D) · Round 26 to the nearest ten = 30 (C) · Round 231 to the nearest ten = 230 (P) · Round 127 to the nearest ten = 130 (N) · Round 6,554 to the nearest thousand = 7000 (A) · Round 8,571 to the nearest thousand = 9000 (O) · Round 94 to the nearest ten = 90 (H)

Clue 2 (Addition): "WITNESS SAW RIGHT HANDED TRACKS"

$1285 + 746 = 2031$ (W) · $3666 + 3990 = 7656$ (T) · $3932 + 2887 = 6819$ (I) · $3896 + 5395 = 9291$ (D) · $993 + 1580 = 2573$ (K) · $4055 + 2114 = 6169$ (G) · $2521 + 1401 = 3922$ (N) · $6139 + 2888 = 9027$ (C) · $2672 + 5281 = 7953$ (H) · $4287 + 3020 = 7307$ (A) · $2662 + 3634 = 6296$ (E) · $3622 + 2015 = 5637$ (S) · $962 + 1305 = 2267$ (R)

Clue 3 (Subtraction): "THE BANDIT FLED FROM LOUD WHISTLE"

$6436 - 3699 = 2737$ (T) · $3497 - 1824 = 1673$ (E) · $7658 - 4064 = 3594$ (F) · $6036 - 3261 = 2775$ (O) · $7855 - 3201 = 4654$ (D) · $10342 - 2407 = 7935$ (S) · $4484 - 1950 = 2534$ (N) · $6262 - 1364 = 4898$ (L) · $8996 - 142 = 8854$ (A) · $3859 - 393 = 3466$ (B) · $9798 - 1889 = 7909$ (I) · $4799 - 2742 = 2057$ (R) · $6135 - 1382 = 4753$ (W) · $3738 - 33 = 3705$ (U) · $8588 - 2121 = 6467$ (H) · $9835 - 2408 = 7427$ (M)

Clue 4 (Multiplication facts (1-12)): "WE FOUND BLONDE BRAID AT THE SCENE"

$4 \times 11 = 44$ (W) · $4 \times 8 = 32$ (E) · $11 \times 3 = 33$ (U) · $5 \times 5 = 25$ (R) · $3 \times 8 = 24$ (B) · $9 \times 1 = 9$ (O) · $8 \times 7 = 56$ (D) · $7 \times 2 = 14$ (I) · $7 \times 10 = 70$ (L) · $7 \times 4 = 28$ (N) · $12 \times 12 = 144$ (F) · $10 \times 10 = 100$ (C) · $9 \times 12 = 108$ (S) · $11 \times 2 = 22$ (T) · $1 \times 6 = 6$ (H) · $4 \times 10 = 40$ (A)

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

$48 \div 6 = 8$ · $2 \div 1 = 2$ · $5 \div 1 = 5$ · $144 \div 12 = 12$ · $7 \div 1 = 7$ · $7 \div 7 = 1$ · $6 \div 2 = 3$ · $90 \div 10 = 9$ · $70 \div 7 = 10$ · $42 \div 7 = 6$ · $32 \div 8 = 4$