



The Great Sky-Shard Heist

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 3-4

Detective: _____ Date: _____

Someone sneaked into the Cloud Tower and took the golden Sky-Shard! Without it, the floating islands of Zephyria might drift away into the fog. We must find the sneaky Sky-Thief before the city floats apart.

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 Sky-Thief is _____

Possible suspects

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

NAME	SKY GEAR	SPY GADGET	DOMINANT HAND	HAIR STYLE	SECRET FEAR
Aviator Abby	Grappling Hook	Night Goggles	uses left hand	messy gold hair	loud honking horns
Max Altitude	Turbo Glider	Solar Compass	uses left hand	braided red hair	bubbly soapy water
Hattie Hover	Turbo Glider	Signal Whistle	uses right hand	braided red hair	bubbly soapy water
Pilot Penny	Cloud Net	Signal Whistle	uses left hand	spiky blue hair	loud honking horns
Gemma Glide	Wind Cannon	Night Goggles	uses left hand	messy gold hair	bubbly soapy water
Stella Star	Cloud Net	Solar Compass	uses left hand	spiky blue hair	bright flashlights
Wendy Wind	Cloud Net	Signal Whistle	uses left hand	braided red hair	loud honking horns
Danny Drift	Steam Pack	Night Goggles	uses left hand	braided red hair	bubbly soapy water
Rusty Gear	Grappling Hook	Laser Pointer	uses right hand	messy gold hair	bright flashlights
Daisy Dare	Steam Pack	Solar Compass	uses right hand	spiky blue hair	bubbly soapy water
Captain Barnaby	Steam Pack	Laser Pointer	uses left hand	braided red hair	bubbly soapy water
Copper Cody	Grappling Hook	Solar Compass	uses left hand	braided red hair	bubbly soapy water
Gale Tempest	Steam Pack	Solar Compass	uses left hand	spiky blue hair	loud honking horns
Breezy Betty	Steam Pack	Pocket Radar	uses right hand	braided red hair	loud honking horns
Bella Balloon	Grappling Hook	Laser Pointer	uses left hand	braided red hair	loud honking horns
Zephyr Zach	Wind Cannon	Solar Compass	uses left hand	braided red hair	bright flashlights
Leo Loop	Grappling Hook	Laser Pointer	uses left hand	braided red hair	bubbly soapy water
Flight Leader Finn	Grappling Hook	Night Goggles	uses left hand	spiky blue hair	bubbly soapy water
Toby Turbo	Grappling Hook	Pocket Radar	uses left hand	messy gold hair	bubbly soapy water
Professor Pip	Wind Cannon	Solar Compass	uses right hand	braided red hair	loud honking horns
Oliver Orbit	Cloud Net	Laser Pointer	uses left hand	spiky blue hair	bubbly soapy water

CLUE 1 Rounding

We scanned the clouds with our sky-radar. The radar screen is old and only shows rounded numbers. We rounded the signals to track the thief.

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

T			T											T			
9000	2000	290	9000	2000	50	290	700	2900	170	290	5000	200	170	9000	3700	5000	290
				T													
200	50	30	2000	9000	30	170	30	30	4300	290	5000						

Round 8,766 to the nearest thousand → **T**

Round 30 to the nearest ten → **G**

Round 4,273 to the nearest hundred → **L**

Round 289 to the nearest ten → **E**

Round 3,739 to the nearest hundred → **U**

Round 169 to the nearest ten → **O**

Round 2,853 to the nearest hundred → **D**

Round 198 to the nearest hundred → **N**

Round 690 to the nearest hundred → **F**

Round 1,849 to the nearest thousand → **H**

Round 4,520 to the nearest thousand → **S**

Round 49 to the nearest ten → **I**

Scratch space:

CLUE 2 Addition

We found some shiny gold screws on a wooden rope bridge. We added up all the screws to see how many tools fell from the thief's belt.

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

T								T									T
3636	7219	5342	7718	8724	4741	4945	3636	7718	3068	7202	3068	3061	5342	7087	3636		

								T
7219	3068	7672	6218	9845	2848	6544	7672	3636

1553 + 2083 = → T	2402 + 5270 = → N	3858 + 3344 = → W
4345 + 2742 = → F	3707 + 5017 = → C	1367 + 1481 = → R
2015 + 4529 = → I	2617 + 2124 = → O	4863 + 2356 = → H
4210 + 2008 = → D	6429 + 3416 = → P	1711 + 1350 = → L
2441 + 2901 = → E	4763 + 2955 = → S	2223 + 2722 = → U
1972 + 1096 = → A		

Scratch space:

CLUE 3 Subtraction

Our fuel tank is leaking after the chase. We subtracted the remaining drops of fuel to find out how far our balloon can fly.

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

T 5195	3557	2933	8503	5867	6623	4553	T 5195	2853	2933	7068	1234	2933	1234	T 5195	3557	2933	3383
6623	2853	2853	6137	1053	T 5195	3557	8503	6623	7650	6193	3959	6137	7650	T 5195	2933	3532	

$7597 - 2402 = \square \rightarrow \text{[T]}$

$10016 - 1513 = \square \rightarrow \text{[S]}$

$4507 - 3454 = \square \rightarrow \text{[I]}$

$9669 - 3802 = \square \rightarrow \text{[C]}$

$3750 - 193 = \square \rightarrow \text{[H]}$

$6417 - 1864 = \square \rightarrow \text{[U]}$

$7534 - 4002 = \square \rightarrow \text{[R]}$

$11081 - 3431 = \square \rightarrow \text{[A]}$

$10149 - 3526 = \square \rightarrow \text{[O]}$

$6835 - 642 = \square \rightarrow \text{[P]}$

$6836 - 2877 = \square \rightarrow \text{[Y]}$

$5472 - 2089 = \square \rightarrow \text{[M]}$

$1886 - 652 = \square \rightarrow \text{[D]}$

$3234 - 301 = \square \rightarrow \text{[E]}$

$11176 - 4108 = \square \rightarrow \text{[N]}$

$3139 - 286 = \square \rightarrow \text{[F]}$

$9929 - 3792 = \square \rightarrow \text{[W]}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

The thief ran through a grove of giant cloud-berry trees. The trees grow in neat rows. We multiplied the rows to count the berries.

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

W														
81	9	120	24	1	10	36	84	72	7	9	56	9	24	120
49	27	84	7	36	9	36	27	9	36	42	84	7	27	

$9 \times 9 = \square \rightarrow \boxed{\text{W}}$

$1 \times 10 = \square \rightarrow \boxed{\text{N}}$

$8 \times 9 = \square \rightarrow \boxed{\text{P}}$

$9 \times 3 = \square \rightarrow \boxed{\text{R}}$

$6 \times 6 = \square \rightarrow \boxed{\text{D}}$

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

$10 \times 12 = \square \rightarrow \boxed{\text{F}}$

$7 \times 6 = \square \rightarrow \boxed{\text{H}}$

$1 \times 1 = \square \rightarrow \boxed{\text{U}}$

$7 \times 1 = \square \rightarrow \boxed{\text{I}}$

$7 \times 7 = \square \rightarrow \boxed{\text{B}}$

$2 \times 12 = \square \rightarrow \boxed{\text{O}}$

$3 \times 3 = \square \rightarrow \boxed{\text{E}}$

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

Scratch space:

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

We rescued some sky-puppies that the thief scared. We divided our dog treats equally among them so they would bark and show us the trail.

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:

$100 \div 10 = \boxed{}$

$30 \div 6 = \boxed{}$

$80 \div 10 = \boxed{}$

$77 \div 7 = \boxed{}$

$6 \div 2 = \boxed{}$

$16 \div 4 = \boxed{}$

$66 \div 11 = \boxed{}$

$81 \div 9 = \boxed{}$

$5 \div 5 = \boxed{}$

$22 \div 11 = \boxed{}$

$72 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain zoomed off on a turbo glider, then aimed a bright green laser pointer.
2. The villain tangled the guards in a cloud net, then put on some dark night goggles.
3. The villain tangled the guards in a cloud net, then aimed a bright green laser pointer.
4. The villain zoomed off on a turbo glider, then tracked the wind with a pocket radar.
5. The villain swung from a heavy grappling hook, then aimed a bright green laser pointer.
6. The villain zoomed off on a turbo glider, then put on some dark night goggles.
7. The villain zoomed off on a turbo glider, then checked the path with a solar compass.
8. The villain swung from a heavy grappling hook, then checked the path with a solar compass.
9. The villain floated up using a steam pack, then put on some dark night goggles.
10. The villain floated up using a steam pack, then aimed a bright green laser pointer.
11. The villain swung from a heavy grappling hook, then blew a loud signal whistle.
12. The villain floated up using a steam pack, then checked the path with a solar compass.

Answer Key

The Great Sky-Shard Heist

Culprit: Max Altitude

Turbo Glider · Solar Compass · uses left hand · braided red hair · bubbly soapy water

Trail: Start 21 → Clue 1 17 → Clue 2 12 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE THIEF DOES NOT USE NIGHT GOGGLES"

Round 8,766 to the nearest thousand = 9000 (T) · Round 30 to the nearest ten = 30 (G) · Round 4,273 to the nearest hundred = 4300 (L) · Round 289 to the nearest ten = 290 (E) · Round 3,739 to the nearest hundred = 3700 (U) · Round 169 to the nearest ten = 170 (O) · Round 2,853 to the nearest hundred = 2900 (D) · Round 198 to the nearest hundred = 200 (N) · Round 690 to the nearest hundred = 700 (F) · Round 1,849 to the nearest thousand = 2000 (H) · Round 4,520 to the nearest thousand = 5000 (S) · Round 49 to the nearest ten = 50 (I)

Clue 2 (Addition): "THE SCOUT SAW A LEFT HAND PRINT"

$1553 + 2083 = 3636$ (T) · $2402 + 5270 = 7672$ (N) · $3858 + 3344 = 7202$ (W) · $4345 + 2742 = 7087$ (F) · $3707 + 5017 = 8724$ (C) · $1367 + 1481 = 2848$ (R) · $2015 + 4529 = 6544$ (I) · $2617 + 2124 = 4741$ (O) · $4863 + 2356 = 7219$ (H) · $4210 + 2008 = 6218$ (D) · $6429 + 3416 = 9845$ (P) · $1711 + 1350 = 3061$ (L) · $2441 + 2901 = 5342$ (E) · $4763 + 2955 = 7718$ (S) · $2223 + 2722 = 4945$ (U) · $1972 + 1096 = 3068$ (A)

Clue 3 (Subtraction): "THE SCOUT FENDED THEM OFF WITH SOAPY WATER"

$7597 - 2402 = 5195$ (T) · $10016 - 1513 = 8503$ (S) · $4507 - 3454 = 1053$ (I) · $9669 - 3802 = 5867$ (C) · $3750 - 193 = 3557$ (H) · $6417 - 1864 = 4553$ (U) · $7534 - 4002 = 3532$ (R) · $11081 - 3431 = 7650$ (A) · $10149 - 3526 = 6623$ (O) · $6835 - 642 = 6193$ (P) · $6836 - 2877 = 3959$ (Y) · $5472 - 2089 = 3383$ (M) · $1886 - 652 = 1234$ (D) · $3234 - 301 = 2933$ (E) · $11176 - 4108 = 7068$ (N) · $3139 - 286 = 2853$ (F) · $9929 - 3792 = 6137$ (W)

Clue 4 (Multiplication facts (1-12)): "WE FOUND A PIECE OF BRAIDED RED HAIR"

$9 \times 9 = 81$ (W) · $1 \times 10 = 10$ (N) · $8 \times 9 = 72$ (P) · $9 \times 3 = 27$ (R) · $6 \times 6 = 36$ (D) · $12 \times 7 = 84$ (A) · $10 \times 12 = 120$ (F) · $7 \times 6 = 42$ (H) · $1 \times 1 = 1$ (U) · $7 \times 1 = 7$ (I) · $7 \times 7 = 49$ (B) · $2 \times 12 = 24$ (O) · $3 \times 3 = 9$ (E) · $7 \times 8 = 56$ (C)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Max Altitude

$100 \div 10 = 10$ · $30 \div 6 = 5$ · $80 \div 10 = 8$ · $77 \div 7 = 11$ · $6 \div 2 = 3$ · $16 \div 4 = 4$ · $66 \div 11 = 6$ · $81 \div 9 = 9$ · $5 \div 5 = 1$ · $22 \div 11 = 2$ · $72 \div 6 = 12$