



The Golden Bone Heist

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

Detective: _____ Date: _____

The legendary Golden Bone Trophy has been swiped from the park clubhouse. A sneaky pup did it, leaving behind a trail of chew toys and paw prints. Ranger Pete needs your help to sniff out the suspect before the annual dog show begins.

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 Treat Thief is _____

Possible suspects

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

NAME	BARK STYLE	FAVORITE TOY	DOMINANT PAW	FUR COAT	TREAT DISTRACTION
Bolt	high jump	rope knot	right-pawed	fluffy gold fur	peanut butter
Max	high jump	squeaky ball	left-pawed	spotted white fur	cheddar cheese
Lola	mega sniff	rubber duck	right-pawed	curly black fur	cheddar cheese
Rex	high jump	plush bear	left-pawed	spotted white fur	cheddar cheese
Lassie	mega sniff	flying frisbee	right-pawed	fluffy gold fur	peanut butter
Rocky	mega sniff	rope knot	right-pawed	curly black fur	bacon strips
Fido	sonic bark	rubber duck	right-pawed	fluffy gold fur	cheddar cheese
Barney	stealthy creep	rope knot	right-pawed	fluffy gold fur	peanut butter
Bailey	sonic bark	plush bear	right-pawed	spotted white fur	peanut butter
Pluto	stealthy creep	rubber duck	left-pawed	fluffy gold fur	cheddar cheese
Toby	super speed dig	plush bear	right-pawed	fluffy gold fur	peanut butter
Sophie	high jump	flying frisbee	right-pawed	spotted white fur	bacon strips
Bella	mega sniff	flying frisbee	left-pawed	fluffy gold fur	peanut butter
Lucy	sonic bark	flying frisbee	right-pawed	curly black fur	peanut butter
Toto	high jump	flying frisbee	right-pawed	fluffy gold fur	bacon strips
Buster	high jump	squeaky ball	right-pawed	spotted white fur	bacon strips
Otis	mega sniff	squeaky ball	left-pawed	curly black fur	peanut butter
Daisy	sonic bark	rubber duck	left-pawed	curly black fur	bacon strips
Snoopy	sonic bark	squeaky ball	right-pawed	fluffy gold fur	peanut butter
Cooper	mega sniff	squeaky ball	right-pawed	fluffy gold fur	bacon strips
Charlie	high jump	plush bear	left-pawed	curly black fur	peanut butter

CLUE 1 Place value

To open the locked suspect gate, we must find the digit in the tens place of the dog house security code.

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

A number line from 0 to 10,000. The line is marked with the following numbers: 900, 800, 200, 6000, 70, 30, 30, 40, 70, 20, 3000, 7000, 200, 50, 20, 7000, 900, 400, 30, 40, 80, 300, 70, 900, 800, 40, 400, 30, 9000, 50, 800, 1000, 200, 40, 700. The numbers 900 and 900 are highlighted in orange and labeled with a 'T'.

What is the value of the 9 in 914?



What is the value of the 5 in 7,850?

A diagram illustrating a transformation. On the left is a simple rectangular box. An arrow points from this box to another rectangular box on the right. This second box contains the letter 'S' in a bold, black font.

What is the value of the 8 in 3,283?

A diagram consisting of a rectangular box on the left, followed by a right-pointing arrow, and then another rectangular box on the right containing the letter 'Y'.

What is the value of the 3 in 93,726?

What is the value of the 7 in 7,148?

→ ☒

What is the value of the 4 in 2,149?

What is the value of the 4 in 466?

What is the value of the 8 in 863?

What is the value of the 3 in 2,637?

What is the value of the 2 in 4,024?

What is the value of the 1 in 1,925?

A diagram showing a box with an arrow pointing to a box labeled B.

What is the value of the 3 in 8,370?

A diagram showing a mapping from an empty box to a box labeled **W**. An arrow points from an empty box on the left to a box containing the letter **W** on the right.

What is the value of the 7 in 8,789?

A diagram showing a box with an arrow pointing to a box labeled **R**.

What is the value of the 9 in 9,000?

A diagram illustrating a transformation. On the left is a simple rectangular box. An arrow points from this box to a second box on the right. The second box contains the letter 'U'.

What is the value of the 2 in 7,250?

What is the value of the 6 in 26,304?

What is the value of the 7 in 572?

A diagram illustrating a transformation. On the left is a simple rectangular box. An arrow points from this box to a second box on the right. The second box is a square with a thick border and contains a single, bold, black capital letter 'I' in the center.

Scratch space:

CLUE 2 Addition

Ranger Pete adds up all the muddy paw prints found on the grass to track the dog's path.

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

T									T					T			
3881	5391	6876	2557	9401	2557	7286	6876	2844	3881	7286	4885	9825	4544	3881	3892	3304	2557
										T							
8784	3304	3538	6876	3865	7507	3304	4885	9825	2392	5391	3881	7286	3304	3892			

$2199 + 1682 = \square \rightarrow$ T	$3907 + 2969 = \square \rightarrow$ E	$1185 + 1372 = \square \rightarrow$ S
$5317 + 3467 = \square \rightarrow$ M	$3060 + 1484 = \square \rightarrow$ N	$1473 + 2065 = \square \rightarrow$ D
$6472 + 3353 = \square \rightarrow$ I	$1999 + 1305 = \square \rightarrow$ A	$1421 + 1423 = \square \rightarrow$ C
$2941 + 4566 = \square \rightarrow$ Y	$2921 + 1964 = \square \rightarrow$ R	$2207 + 3184 = \square \rightarrow$ H
$3313 + 6088 = \square \rightarrow$ U	$1199 + 1193 = \square \rightarrow$ G	$4465 + 2821 = \square \rightarrow$ P
$1709 + 2183 = \square \rightarrow$ W	$2511 + 1354 = \square \rightarrow$ B	

Scratch space:

CLUE 3 Rounding

The park radar only shows the rounded distance to the runaway's hideout, so we must round the number.

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

T			T						T						T	
230	70	30	230	70	7000	30	170	900	230	290	500	500	30	430	230	290
										T		T	T			
3000	7000	700	2000	500	30	9000	2900	2300	230	1300	2300	230	230	30	90	

Round 234 to the nearest ten → **T**

Round 66 to the nearest ten → **H**

Round 1,321 to the nearest hundred → **B**

Round 1,800 to the nearest thousand → **K**

Round 741 to the nearest hundred → **C**

Round 500 to the nearest hundred → **P**

Round 87 to the nearest ten → **R**

Round 2,309 to the nearest hundred → **U**

Round 8,616 to the nearest thousand → **A**

Round 170 to the nearest ten → **F**

Round 27 to the nearest ten → **E**

Round 2,922 to the nearest hundred → **N**

Round 426 to the nearest ten → **D**

Round 292 to the nearest ten → **O**

Round 6,723 to the nearest thousand → **I**

Round 897 to the nearest hundred → **S**

Round 2,573 to the nearest thousand → **L**

Scratch space:

CLUE 4

Subtraction

We subtract the stolen treats from the full jar to see how many the suspect left behind.

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

W																
3522	3528	3938	3677	6406	4522	7473	3938	6798	6406	3938	3938	2079	7792	3677	6798	7473

3938	6406	6065	4455	3017	3017	1401	3528	2478	2199	3528	4522	3528

$6922 - 3400 = \square \rightarrow \boxed{W}$

$10706 - 3908 = \square \rightarrow \boxed{L}$

$5127 - 2110 = \square \rightarrow \boxed{T}$

$2951 - 752 = \square \rightarrow \boxed{C}$

$9604 - 3198 = \square \rightarrow \boxed{U}$

$8929 - 1137 = \square \rightarrow \boxed{G}$

$3870 - 1392 = \square \rightarrow \boxed{S}$

$5919 - 1464 = \square \rightarrow \boxed{A}$

$7281 - 2759 = \square \rightarrow \boxed{N}$

$3740 - 63 = \square \rightarrow \boxed{O}$

$11848 - 4375 = \square \rightarrow \boxed{D}$

$2871 - 792 = \square \rightarrow \boxed{Y}$

$4394 - 866 = \square \rightarrow \boxed{E}$

$4880 - 942 = \square \rightarrow \boxed{F}$

$5759 - 4358 = \square \rightarrow \boxed{H}$

$8737 - 2672 = \square \rightarrow \boxed{R}$

Scratch space:

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

We divide a pack of reward biscuits equally among the helpful park pups to keep them searching.

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:

$100 \div 10 = \boxed{}$

$144 \div 12 = \boxed{}$

$10 \div 2 = \boxed{}$

$18 \div 3 = \boxed{}$

$7 \div 7 = \boxed{}$

$77 \div 11 = \boxed{}$

$24 \div 3 = \boxed{}$

$66 \div 6 = \boxed{}$

$48 \div 12 = \boxed{}$

$18 \div 6 = \boxed{}$

$14 \div 7 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain lets out a loud sonic bark, then chews on a rubber duck.
2. The villain creeps quietly through the grass, then chews on a rubber duck.
3. The villain leaps over the clubhouse fence, then catches a flying frisbee.
4. The villain leaps over the clubhouse fence, then chews on a rubber duck.
5. The villain sniffs out the hidden golden prize, then catches a flying frisbee.
6. The villain digs a deep hole under the wall, then squeaks a rubber ball.
7. The villain digs a deep hole under the wall, then hugs a plush bear.
8. The villain lets out a loud sonic bark, then catches a flying frisbee.
9. The villain creeps quietly through the grass, then tugs a rope knot.
10. The villain lets out a loud sonic bark, then squeaks a rubber ball.
11. The villain lets out a loud sonic bark, then tugs a rope knot.
12. The villain leaps over the clubhouse fence, then tugs a rope knot.

Answer Key

The Golden Bone Heist

Culprit: Barney

stealthy creep · rope knot · right-pawed · fluffy gold fur · peanut butter

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

Clue 1 (Place value): "THE VILLAIN DOES NOT PLAY WITH A PLUSH BEAR"

What is the value of the 9 in 914? = 900 (T) · What is the value of the 5 in 7,850? = 50 (S) · What is the value of the 8 in 3,283? = 80 (Y) · What is the value of the 3 in 93,726? = 3000 (D) · What is the value of the 7 in 7,148? = 7000 (O) · What is the value of the 4 in 2,149? = 40 (A) · What is the value of the 4 in 466? = 400 (P) · What is the value of the 8 in 863? = 800 (H) · What is the value of the 3 in 2,637? = 30 (L) · What is the value of the 2 in 4,024? = 20 (N) · What is the value of the 1 in 1,925? = 1000 (B) · What is the value of the 3 in 8,370? = 300 (W) · What is the value of the 7 in 8,789? = 700 (R) · What is the value of the 9 in 9,000? = 9000 (U) · What is the value of the 2 in 7,250? = 200 (E) · What is the value of the 6 in 26,304? = 6000 (V) · What is the value of the 7 in 572? = 70 (I)

Clue 2 (Addition): "THE SUSPECT PRINT WAS MADE BY A RIGHT PAW"

2199 + 1682 = 3881 (T) · 3907 + 2969 = 6876 (E) · 1185 + 1372 = 2557 (S) · 5317 + 3467 = 8784 (M) · 3060 + 1484 = 4544 (N) · 1473 + 2065 = 3538 (D) · 6472 + 3353 = 9825 (I) · 1999 + 1305 = 3304 (A) · 1421 + 1423 = 2844 (C) · 2941 + 4566 = 7507 (Y) · 2921 + 1964 = 4885 (R) · 2207 + 3184 = 5391 (H) · 3313 + 6088 = 9401 (U) · 1199 + 1193 = 2392 (G) · 4465 + 2821 = 7286 (P) · 1709 + 2183 = 3892 (W) · 2511 + 1354 = 3865 (B)

Clue 3 (Rounding): "THE THIEF STOPPED TO LICK PEANUT BUTTER"

Round 234 to the nearest ten = 230 (T) · Round 66 to the nearest ten = 70 (H) · Round 1,321 to the nearest hundred = 1300 (B) · Round 1,800 to the nearest thousand = 2000 (K) · Round 741 to the nearest hundred = 700 (C) · Round 500 to the nearest hundred = 500 (P) · Round 87 to the nearest ten = 90 (R) · Round 2,309 to the nearest hundred = 2300 (U) · Round 8,616 to the nearest thousand = 9000 (A) · Round 170 to the nearest ten = 170 (F) · Round 27 to the nearest ten = 30 (E) · Round 2,922 to the nearest hundred = 2900 (N) · Round 426 to the nearest ten = 430 (D) · Round 292 to the nearest ten = 290 (O) · Round 6,723 to the nearest thousand = 7000 (I) · Round 897 to the nearest hundred = 900 (S) · Round 2,573 to the nearest thousand = 3000 (L)

Clue 4 (Subtraction): "WE FOUND FLUFFY GOLD FUR AT THE SCENE"

6922 - 3400 = 3522 (W) · 10706 - 3908 = 6798 (L) · 5127 - 2110 = 3017 (T) · 2951 - 752 = 2199 (C) · 9604 - 3198 = 6406 (U) · 8929 - 1137 = 7792 (G) · 3870 - 1392 = 2478 (S) · 5919 - 1464 = 4455 (A) · 7281 - 2759 = 4522 (N) · 3740 - 63 = 3677 (O) · 11848 - 4375 = 7473 (D) · 2871 - 792 = 2079 (Y) · 4394 - 866 = 3528 (E) · 4880 - 942 = 3938 (F) · 5759 - 4358 = 1401 (H) · 8737 - 2672 = 6065 (R)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Barney

100 ÷ 10 = 10 · 144 ÷ 12 = 12 · 10 ÷ 2 = 5 · 18 ÷ 3 = 6 · 7 ÷ 7 = 1 · 77 ÷ 11 = 7 · 24 ÷ 3 = 8 · 66 ÷ 6 = 11 · 48 ÷ 12 = 4 · 18 ÷ 6 = 3 · 14 ÷ 7 = 2