



The Golden Monkey Mystery

Grade 8 math · Fractions of a number, Multi-step word problems, Exponents, Square roots · Reading level grades 1-2

Detective: _____ Date: _____

The golden monkey statue is gone! A sneaky thief took it from the temple. We must track them down and save the day.

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 mischievous thief is _____

Possible suspects

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

NAME	EXPLORER GEAR	BACKPACK TOOL	WRITING HAND	HAIR STYLE	FRIGHTENED BY
Lara Croft	swamp boots	pocket compass	right-handed writer	spiky brown hair	tickle feathers
Peter Pan	safari binoculars	bug spray	right-handed writer	messy black hair	tickle feathers
Tarzan	safari binoculars	snack pack	right-handed writer	spiky brown hair	squeaky toy sound
Daniel Boone	swamp boots	bug spray	left-handed writer	messy black hair	tickle feathers
Hardy Boy	climbing rope	walkie talkie	right-handed writer	messy black hair	tickle feathers
Bindi Irwin	jungle machete	snack pack	right-handed writer	messy black hair	tickle feathers
Marco Polo	safari binoculars	bug spray	right-handed writer	messy black hair	squeaky toy sound
Sacagawea	safari binoculars	walkie talkie	right-handed writer	messy black hair	bright flashlight
Sinbad	grappling hook	pocket compass	left-handed writer	spiky brown hair	bright flashlight
Percy Fawcett	swamp boots	bug spray	left-handed writer	wild blonde curls	tickle feathers
Phileas Fogg	climbing rope	torch light	right-handed writer	messy black hair	squeaky toy sound
Robin Hood	swamp boots	walkie talkie	right-handed writer	messy black hair	tickle feathers
Nancy Drew	jungle machete	pocket compass	right-handed writer	messy black hair	squeaky toy sound
Amelia Earhart	jungle machete	torch light	left-handed writer	messy black hair	tickle feathers
Diego Marquez	grappling hook	walkie talkie	right-handed writer	wild blonde curls	tickle feathers
Wendy Darling	safari binoculars	walkie talkie	left-handed writer	wild blonde curls	tickle feathers
Allan Quatermain	jungle machete	torch light	right-handed writer	messy black hair	tickle feathers
Jane Goodall	climbing rope	pocket compass	right-handed writer	messy black hair	squeaky toy sound
Nellie Bly	grappling hook	snack pack	right-handed writer	spiky brown hair	squeaky toy sound
Indiana Jones	jungle machete	bug spray	left-handed writer	wild blonde curls	bright flashlight
Steve Irwin	swamp boots	bug spray	left-handed writer	messy black hair	squeaky toy sound

CLUE 1 Fractions of a number

We found a pile of ancient gold coins. The thief took some. Let us count how many are left.

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



6/10 of 90 = → **T**

$2/8$ of 172 = $\rightarrow$ **R**

$\frac{1}{4}$ of 68 = $\rightarrow$

$$5/8 \text{ of } 56 = \boxed{} \rightarrow \boxed{\text{P}}$$

$\frac{1}{4}$ of 36 = $\rightarrow$ **F**

$$\frac{1}{6} \text{ of } 18 = \boxed{} \rightarrow \boxed{\text{N}}$$

$2/8$ of 188 = $\rightarrow$ **K**

$$\frac{1}{3} \text{ of } 72 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$\frac{1}{3} \text{ of } 48 = \boxed{} \rightarrow \boxed{\text{I}}$$

$2/8$ of 192 = $\rightarrow$ **E**

5/10 of 40 = → **C**

$2/8$ of 148 = $\rightarrow$ **D**

$$1/10 \text{ of } 110 = \boxed{} \rightarrow \boxed{\text{S}}$$

$\frac{1}{8}$ of 56 = $\rightarrow$ **A**

$\frac{1}{8}$ of 152 = $\rightarrow$ **Y**

Scratch space:

CLUE 2

Multi-step word problems

The camp kitchen was messy. We had bananas and apples. Some were taken and some were dropped.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A witness saw the villain was

R									D	E	D	W	R			E	R
38	15	59	65	76	65	11	72					38	15	76		38	

There were 332 bananas in all. 28 bananas were set aside. The rest were shared equally among 8 Jungle Club. How many bananas did each get?

Answer: → **R**

Ranger Rick collected 14 map pieces in the morning and 181 map pieces in the afternoon, then split them equally among 3 Jungle Club. How many map pieces did each get?

Answer: → **H**

Ranger Rick filled 2 boxes with 7 bananas each, then found 1 more bananas. How many bananas are there in all?

Answer: → **I**

There were 688 gold coins in all. 4 gold coins were set aside. The rest were shared equally among 9 Jungle Club. How many gold coins did each get?

Answer: → **T**

Ranger Rick earned 7 map pieces in each of 5 rounds, plus 28 bonus map pieces. Then 4 map pieces were lost. How many map pieces are left?

Answer: → **G**

Ranger Rick filled 9 boxes with 3 vines each, then found 45 more vines. How many vines are there in all?

Answer: → **N**

There were 89 bananas in all. 1 bananas were set aside. The rest were shared equally among 8 Jungle Club. How many bananas did each get?

Answer: → **A**

Scratch space:

CLUE 3 Exponents

We found a locked box with a grid of buttons. The number of buttons grows fast in square layers.

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

T																	
36	9	27	243	81	9	169	484	125	324	441	729	8	324	4	9	27	125
4	27	4	729	100	27	216	729	400	27	729	36	9	27	169			

$6^2 = \square \rightarrow$ T	$9^3 = \square \rightarrow$ A	$3^2 = \square \rightarrow$ H	$3^5 = \square \rightarrow$ Y
$3^3 = \square \rightarrow$ E	$2^3 = \square \rightarrow$ C	$3^4 = \square \rightarrow$ S	$13^2 = \square \rightarrow$ R
$22^2 = \square \rightarrow$ U	$5^3 = \square \rightarrow$ N	$18^2 = \square \rightarrow$ K	$2^2 = \square \rightarrow$ W
$21^2 = \square \rightarrow$ B	$10^2 = \square \rightarrow$ V	$6^3 = \square \rightarrow$ D	$20^2 = \square \rightarrow$ F

Scratch space:

CLUE 4 Square roots

The secret temple floor is a perfect square. We need to find the length of just one side.

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

W																	
24	17	2	25	18	9	7	22	13	25	9	11	14	19	3	22	9	7
25	2	15	13	22	23	5	20	22	4	3							

$\sqrt{576} = \square \rightarrow \text{W}$	$\sqrt{400} = \square \rightarrow \text{H}$	$\sqrt{4} = \square \rightarrow \text{F}$
$\sqrt{196} = \square \rightarrow \text{S}$	$\sqrt{225} = \square \rightarrow \text{B}$	$\sqrt{324} = \square \rightarrow \text{U}$
$\sqrt{121} = \square \rightarrow \text{G}$	$\sqrt{484} = \square \rightarrow \text{A}$	$\sqrt{9} = \square \rightarrow \text{R}$
$\sqrt{16} = \square \rightarrow \text{I}$	$\sqrt{289} = \square \rightarrow \text{E}$	$\sqrt{625} = \square \rightarrow \text{O}$
$\sqrt{529} = \square \rightarrow \text{C}$	$\sqrt{81} = \square \rightarrow \text{N}$	$\sqrt{169} = \square \rightarrow \text{L}$
$\sqrt{49} = \square \rightarrow \text{D}$	$\sqrt{25} = \square \rightarrow \text{K}$	$\sqrt{361} = \square \rightarrow \text{T}$

Scratch space:

CLUE 5**Fractions of a number - the last clue**

The team shared a basket of sweet papayas. Only a small fraction of the fruit remains in the bag.

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:

$4/8 \text{ of } 20 = \boxed{}$

$7/10 \text{ of } 10 = \boxed{}$

$2/6 \text{ of } 6 = \boxed{}$

$8/10 \text{ of } 5 = \boxed{}$

$3/6 \text{ of } 10 = \boxed{}$

$6/8 \text{ of } 8 = \boxed{}$

$2/6 \text{ of } 9 = \boxed{}$

$5/10 \text{ of } 18 = \boxed{}$

$6/8 \text{ of } 16 = \boxed{}$

$4/5 \text{ of } 10 = \boxed{}$

$2/8 \text{ of } 44 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain climbs the rope, then talks on a walkie talkie.
2. The villain swings the machete, then checks the compass.
3. The villain swings the machete, then talks on a walkie talkie.
4. The villain looks through binoculars, then shines a torch light.
5. The villain looks through binoculars, then checks the compass.
6. The villain uses a grappling hook, then eats from a snack pack.
7. The villain looks through binoculars, then sprays the bug spray.
8. The villain wears swamp boots, then sprays the bug spray.
9. The villain climbs the rope, then shines a torch light.
10. The villain wears swamp boots, then talks on a walkie talkie.
11. The villain uses a grappling hook, then shines a torch light.
12. The villain looks through binoculars, then eats from a snack pack.

Answer Key

The Golden Monkey Mystery

Culprit: Hardy Boy

climbing rope · walkie talkie · right-handed writer · messy black hair · tickle feathers

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Fractions of a number): "THE THIEF DOES NOT CARRY A SNACK PACK"

$6/10$ of 90 = 54 (T) · $2/8$ of 172 = 43 (R) · $1/4$ of 68 = 17 (O) · $5/8$ of 56 = 35 (P) · $1/4$ of 36 = 9 (F) · $1/6$ of 18 = 3 (N) · $2/8$ of 188 = 47 (K) · $1/3$ of 72 = 24 (H) · $1/3$ of 48 = 16 (I) · $2/8$ of 192 = 48 (E) · $5/10$ of 40 = 20 (C) · $2/8$ of 148 = 37 (D) · $1/10$ of 110 = 11 (S) · $1/8$ of 56 = 7 (A) · $1/8$ of 152 = 19 (Y)

Clue 2 (Multi-step word problems): "RIGHT HANDED WRITER"

There were 332 bananas in all. 28 bananas were set aside. The rest were shared equally among 8 Jungle Club. How many bananas did each get? = 38 (R) · Ranger Rick collected 14 map pieces in the morning and 181 map pieces in the afternoon, then split them equally among 3 Jungle Club. How many map pieces did each get? = 65 (H) · Ranger Rick filled 2 boxes with 7 bananas each, then found 1 more bananas. How many bananas are there in all? = 15 (I) · There were 688 gold coins in all. 4 gold coins were set aside. The rest were shared equally among 9 Jungle Club. How many gold coins did each get? = 76 (T) · Ranger Rick earned 7 map pieces in each of 5 rounds, plus 28 bonus map pieces. Then 4 map pieces were lost. How many map pieces are left? = 59 (G) · Ranger Rick filled 9 boxes with 3 vines each, then found 45 more vines. How many vines are there in all? = 72 (N) · There were 89 bananas in all. 1 bananas were set aside. The rest were shared equally among 8 Jungle Club. How many bananas did each get? = 11 (A)

Clue 3 (Exponents): "THEY SHRUNK BACK WHEN WE WAVED A FEATHER"

$6^2 = 36$ (T) · $9^3 = 729$ (A) · $3^2 = 9$ (H) · $3^5 = 243$ (Y) · $3^3 = 27$ (E) · $2^3 = 8$ (C) · $3^4 = 81$ (S) · $13^2 = 169$ (R) · $22^2 = 484$ (U) · $5^3 = 125$ (N) · $18^2 = 324$ (K) · $2^2 = 4$ (W) · $21^2 = 441$ (B) · $10^2 = 100$ (V) · $6^3 = 216$ (D) · $20^2 = 400$ (F)

Clue 4 (Square roots): "WE FOUND A LONG STRAND OF BLACK HAIR"

$\sqrt{576} = 24$ (W) · $\sqrt{400} = 20$ (H) · $\sqrt{4} = 2$ (F) · $\sqrt{196} = 14$ (S) · $\sqrt{225} = 15$ (B) · $\sqrt{324} = 18$ (U) · $\sqrt{121} = 11$ (G) · $\sqrt{484} = 22$ (A) · $\sqrt{9} = 3$ (R) · $\sqrt{16} = 4$ (I) · $\sqrt{289} = 17$ (E) · $\sqrt{625} = 25$ (O) · $\sqrt{529} = 23$ (C) · $\sqrt{81} = 9$ (N) · $\sqrt{169} = 13$ (L) · $\sqrt{49} = 7$ (D) · $\sqrt{25} = 5$ (K) · $\sqrt{361} = 19$ (T)

Clue 5 (Fractions of a number): surviving statement is box 1 → Hardy Boy

$4/8$ of 20 = 10 · $7/10$ of 10 = 7 · $2/6$ of 6 = 2 · $8/10$ of 5 = 4 · $3/6$ of 10 = 5 · $6/8$ of 8 = 6 · $2/6$ of 9 = 3 · $5/10$ of 18 = 9 · $6/8$ of 16 = 12 · $4/5$ of 10 = 8 · $2/8$ of 44 = 11