



The Ruins of the Jade Beetle

Grade 5 math · Skip counting, Multi-step word problems, Word problems, Multiplication, Division · Reading level grades 5-6

Detective: _____ Date: _____

A rogue explorer has snatched the legendary Jade Beetle from the Echoing Ruins! The head curator needs your help to decode the ancient trail, avoid the temple traps, and find the culprit before they escape the jungle.

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 rogue explorer 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	ANCIENT CHARM	WRITING HABIT	HEADWEAR	PHOBIA
Professor Oak	machete	sun medallion	writes notes with left hand	green safari hat	afraid of water
Lara	torch	moon pendant	writes notes with left hand	brown fedora	afraid of water
Wyatt	compass	earth stone	writes notes with right hand	green safari hat	afraid of spiders
Marco Polo	compass	sun medallion	writes notes with right hand	brown fedora	afraid of spiders
Chloe	torch	sun medallion	writes notes with left hand	green safari hat	afraid of spiders
Nathan	torch	moon pendant	writes notes with right hand	yellow helmet	afraid of water
Dr Jones	compass	sky relic	writes notes with right hand	yellow helmet	afraid of water
Sir Reginald	binoculars	sky relic	writes notes with right hand	yellow helmet	afraid of heights
Annie Oakley	grappling hook	sky relic	writes notes with right hand	yellow helmet	afraid of water
Blackbeard	compass	moon pendant	writes notes with left hand	green safari hat	afraid of spiders
Nellie Bly	binoculars	moon pendant	writes notes with right hand	brown fedora	afraid of water
Doc Holliday	grappling hook	moon pendant	writes notes with right hand	brown fedora	afraid of spiders
Sully	machete	star amulet	writes notes with left hand	brown fedora	afraid of heights
Calico Jack	grappling hook	moon pendant	writes notes with right hand	green safari hat	afraid of water
Amelia	machete	sky relic	writes notes with right hand	green safari hat	afraid of spiders
Sacagawea	compass	earth stone	writes notes with right hand	green safari hat	afraid of water
Wild Bill	compass	star amulet	writes notes with left hand	green safari hat	afraid of water
Charles	torch	star amulet	writes notes with right hand	green safari hat	afraid of spiders
Percy Fawcett	grappling hook	sun medallion	writes notes with right hand	green safari hat	afraid of spiders
Henry Morgan	machete	sun medallion	writes notes with right hand	green safari hat	afraid of spiders
Captain Kidd	compass	sun medallion	writes notes with right hand	yellow helmet	afraid of water

CLUE 1 Skip counting

You find a muddy backpack left behind by the suspect. To count the spare supplies inside, you need to solve this inventory problem.

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

T																T
100	35	42	140	24	90	90	16	24	60	28	50	42	27	60	50	100
				T												
35	16	140	42	100	35	42	27	45	25	65	42	90	24	20		

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 → **T**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **O**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 → **I**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 → **C**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 → **K**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **Y**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **A**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 → **S**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 → **N**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **V**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **E**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **L**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **D**

Scratch space:

CLUE 2

Multi-step word problems

A heavy stone gate blocks the path. You must calculate both the weight of your gear and the counterweight stones to lift the gate.

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

A witness saw the villain was

W							O				W			H			G	H		H	A		D
16	41	65	79	21	42	29		79	21	42	16	65	79		41	65		79			29		

Scout earned 5 map in each of 4 rounds, plus 2 bonus map. Then 6 map were lost. How many map are left?

Answer: → **W**

There were 100 map in all. 16 map were set aside. The rest were shared equally among 4 Junior Explorers. How many map did each get?

Answer: → **E**

Scout filled 4 boxes with 2 shovel each, then found 57 more shovel. How many shovel are there in all?

Answer: → **I**

Scout collected 11 shovel in the morning and 47 shovel in the afternoon, then split them equally among 2 Junior Explorers. How many shovel did each get?

Answer: → **N**

Scout earned 4 map in each of 5 rounds, plus 69 bonus map. Then 10 map were lost. How many map are left?

Answer: → **T**

Scout earned 8 artifact in each of 4 rounds, plus 24 bonus artifact. Then 15 artifact were lost. How many artifact are left?

Answer: → **R**

Scout collected 118 shovel in the morning and 50 shovel in the afternoon, then split them equally among 4 Junior Explorers. How many shovel did each get?

Answer: → **S**

Scratch space:

CLUE 3

Word problems

To safely cross the ancient pressure-plate floor, follow the pattern on the stones by skip counting the carved numbers.

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

Someone scared the villain off with

A

A

P

E

98 34 66 98 51 70 56 34 72 51 70 66 72

There were 123 canteen. 25 were used up. How many canteen are left?

Answer: → A

Scout found 2 shovel yesterday and 49 more today. How many shovel in all?

Answer: → I

There were 87 map. 17 were used up. How many map are left?

Answer: → D

Scout lined up 11 rows of 6 shovel. How many shovel in all?

Answer: → R

Scout lined up 8 rows of 7 canteen. How many canteen in all?

Answer: → O

Scout found 29 canteen yesterday and 5 more today. How many canteen in all?

Answer: → F

Scout lined up 8 rows of 9 shovel. How many shovel in all?

Answer: → S

Scratch space:

CLUE 4

Multiplication facts (1-12)

You reach a wall of golden beetle statues arranged in neat rows. Multiply the rows and columns to find the secret release switch.

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

W																	
36	84	2	15	14	80	24	35	12	10	72	35	44	2	72	15	1	35
22	72	84	84	80	12	35	2	35	72	50	4	35	10				

$12 \times 3 = \square \rightarrow \text{W}$

$10 \times 8 = \square \rightarrow \text{N}$

$11 \times 2 = \square \rightarrow \text{G}$

$1 \times 1 = \square \rightarrow \text{M}$

$5 \times 10 = \square \rightarrow \text{I}$

$3 \times 4 = \square \rightarrow \text{S}$

$2 \times 12 = \square \rightarrow \text{D}$

$2 \times 7 = \square \rightarrow \text{U}$

$10 \times 1 = \square \rightarrow \text{T}$

$4 \times 11 = \square \rightarrow \text{P}$

$7 \times 5 = \square \rightarrow \text{A}$

$12 \times 7 = \square \rightarrow \text{E}$

$3 \times 5 = \square \rightarrow \text{O}$

$4 \times 1 = \square \rightarrow \text{H}$

$12 \times 6 = \square \rightarrow \text{R}$

$1 \times 2 = \square \rightarrow \text{F}$

Scratch space:

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

The jungle path splits into several directions. Divide the total map distance by your team size to figure out how far each scout should explore.

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:

$36 \div 6 = \boxed{}$

$72 \div 6 = \boxed{}$

$9 \div 9 = \boxed{}$

$88 \div 11 = \boxed{}$

$36 \div 9 = \boxed{}$

$55 \div 11 = \boxed{}$

$36 \div 4 = \boxed{}$

$60 \div 6 = \boxed{}$

$3 \div 1 = \boxed{}$

$6 \div 3 = \boxed{}$

$22 \div 2 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain cut through the thick vines with a machete, then activated the hidden door with the sun medallion.
2. The villain checked the trail direction with a compass, then disarmed the dart trap with the star amulet.
3. The villain swung across the pit using a grappling hook, then unlocked the secret chest with the moon pendant.
4. The villain cut through the thick vines with a machete, then unlocked the secret chest with the moon pendant.
5. The villain spotted the distant temple with binoculars, then disarmed the dart trap with the star amulet.
6. The villain checked the trail direction with a compass, then calmed the stone guardian with the earth stone.
7. The villain lit up the dark hallway with a torch, then disarmed the dart trap with the star amulet.
8. The villain cut through the thick vines with a machete, then bypassed the wind barrier with the sky relic.
9. The villain cut through the thick vines with a machete, then calmed the stone guardian with the earth stone.
10. The villain lit up the dark hallway with a torch, then activated the hidden door with the sun medallion.
11. The villain lit up the dark hallway with a torch, then bypassed the wind barrier with the sky relic.
12. The villain swung across the pit using a grappling hook, then activated the hidden door with the sun medallion.

Answer Key

The Ruins of the Jade Beetle

Culprit: Charles

torch · star amulet · writes notes with right hand · green safari hat · afraid of spiders

Trail: Start 21 → Clue 1 17 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Skip counting): "THE VILLAIN DOES NOT HAVE THE SKY RELIC"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (T) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, __, 27, 30 = 24 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, __, 25, 30 = 20 (C) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, __, 50, 55 = 45 (K) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (Y) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 = 16 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, __, 65, 70 = 60 (N) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (V) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (L) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (D)

Clue 2 (Multi-step word problems): "WRITES NOTES WITH RIGHT HAND"

Scout earned 5 map in each of 4 rounds, plus 2 bonus map. Then 6 map were lost. How many map are left? = 16 (W) · There were 100 map in all. 16 map were set aside. The rest were shared equally among 4 Junior Explorers. How many map did each get? = 21 (E) · Scout filled 4 boxes with 2 shovel each, then found 57 more shovel. How many shovel are there in all? = 65 (I) · Scout collected 11 shovel in the morning and 47 shovel in the afternoon, then split them equally among 2 Junior Explorers. How many shovel did each get? = 29 (N) · Scout earned 4 map in each of 5 rounds, plus 69 bonus map. Then 10 map were lost. How many map are left? = 79 (T) · Scout earned 8 artifact in each of 4 rounds, plus 24 bonus artifact. Then 15 artifact were lost. How many artifact are left? = 41 (R) · Scout collected 118 shovel in the morning and 50 shovel in the afternoon, then split them equally among 4 Junior Explorers. How many shovel did each get? = 42 (S)

Clue 3 (Word problems): "AFRAID OF SPIDERS"

There were 123 canteen. 25 were used up. How many canteen are left? = 98 (A) · Scout found 2 shovel yesterday and 49 more today. How many shovel in all? = 51 (I) · There were 87 map. 17 were used up. How many map are left? = 70 (D) · Scout lined up 11 rows of 6 shovel. How many shovel in all? = 66 (R) · Scout lined up 8 rows of 7 canteen. How many canteen in all? = 56 (O) · Scout found 29 canteen yesterday and 5 more today. How many canteen in all? = 34 (F) · Scout lined up 8 rows of 9 shovel. How many shovel in all? = 72 (S)

Clue 4 (Multiplication facts (1-12)): "WE FOUND A STRAP FROM A GREEN SAFARI HAT"

$12 \times 3 = 36$ (W) · $10 \times 8 = 80$ (N) · $11 \times 2 = 22$ (G) · $1 \times 1 = 1$ (M) · $5 \times 10 = 50$ (I) · $3 \times 4 = 12$ (S) · $2 \times 12 = 24$ (D) · $2 \times 7 = 14$ (U) · $10 \times 1 = 10$ (T) · $4 \times 11 = 44$ (P) · $7 \times 5 = 35$ (A) · $12 \times 7 = 84$ (E) · $3 \times 5 = 15$ (O) · $4 \times 1 = 4$ (H) · $12 \times 6 = 72$ (R) · $1 \times 2 = 2$ (F)

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

$36 \div 6 = 6$ · $72 \div 6 = 12$ · $9 \div 9 = 1$ · $88 \div 11 = 8$ · $36 \div 9 = 4$ · $55 \div 11 = 5$ · $36 \div 4 = 9$ · $60 \div 6 = 10$ · $3 \div 1 = 3$ · $6 \div 3 = 2$ · $22 \div 2 = 11$