Grade 5

Your first case starts here.

The Missing Keeper's Cap

A complete mystery to print, solve and enjoy.

By Roberta Spring

1. Read the case briefing and meet the suspects.

2. Work through all five clues. Cross suspects off as the evidence rules them out.

3. Complete your case report, then check the worked answers.

You will need: a pencil, an eraser and some paper for working out. An adult can help with reading the instructions.

This sample is one complete case from the supplied Grade 5 book. The bonus letter for the full-book final mystery is optional; you do not need it to solve this case.

Print at actual size (100%) on US Letter paper. On A4, choose Fit. Print only the case pages if you want to save paper; the answers begin after the STOP page.

Explore the Grade 5 books at BrainBoxBooks.shop

CASE #01 · ZOO ESCAPE

THE MISSING KEEPER'S CAP

The trail begins beside a single shiny button. During a quiet moment, the green keeper cap slipped away from the animal kitchen. Work through the math trail, cross off the suspects, and identify who borrowed it!

MISSING: GREEN KEEPER CAP
LAST SEEN: ANIMAL KITCHEN

DIFFICULTY	MISSION TIME	MATH SKILLS
★★☆☆	~50 min	4

THE SUSPECTS



SUSPECT 1
GRETA · the Night watch
Method: A GRABBER



SUSPECT 5
YUSUF · the Gate guard
Method: A DISGUISE



SUSPECT 2
OLLIE · the Balloon seller
Method: A LADDER



SUSPECT 6
CARL · the Ticket clerk
Method: A TROLLEY



SUSPECT 3
PETE · the Photographer
Method: A SKATEBOARD



SUSPECT 7
ELSIE · the Zookeeper
Method: A DISGUISE



SUSPECT 4
BONNIE · the Vet
Method: A ROPE



SUSPECT 8
FREYA · the Tour guide
Method: A ROPE

YOUR CLUES

CLUE 1 · WORD PROBLEMS | CLUE 2 · WORD PROBLEMS | CLUE 3 · ORDER OF OPERATIONS | CLUE 4 · MAPS & SCALE | CLUE 5 · IN & OUT MACHINES

Solve each clue sheet and cross suspects off. The last name standing is your culprit!

CASE #01 · ZOO ESCAPE

CLUE 1 OF 5

WORD PROBLEMS

HOW FAR DID PONIES TROT?

Cross off every suspect who travelled FEWER than 500 km.

HOW FAR DID EACH SUSPECT GO?

Greta covered 647 km, then 9 more. Total: ___ _____

Ollie covered 839 km, then 4 more. Total: ___ _____

Pete cycled 7 hours at 98 km per hour, then walked 4 km. Total: ___ _____

Bonnie covered 633 km, then 7 more. Total: ___ _____

Yusuf covered 877 km, then 22 more. Total: ___ _____

Carl covered 339 km, then 5 more. Total: ___ _____

Elsie cycled 6 hours at 81 km per hour, then walked 19 km. Total: ___ _____

Freya cycled 9 hours at 84 km per hour, then walked 19 km. Total: ___ _____

Do the math, then cross off every suspect the rule catches!

CASE #01 · ZOO ESCAPE

CLUE 2 OF 5

WORD PROBLEMS

MEASURE THE SAFARI JOURNEY

A big escape! Cross off everyone who went FEWER than 500 km.

HOW FAR DID EACH SUSPECT GO?

Greta covered 634 km, then 6 more. Total: ___ _____

Ollie cycled 9 hours at 94 km per hour, then walked 29 km. Total: ___ _____

Pete covered 780 km, then 17 more. Total: ___ _____

Bonnie covered 789 km, then 5 more. Total: ___ _____

Yusuf covered 573 km, then 28 more. Total: ___ _____

Carl covered 629 km, then 16 more. Total: ___ _____

Elsie cycled 2 hours at 46 km per hour, then walked 13 km. Total: ___ _____

Freya covered 733 km, then 13 more. Total: ___ _____

Do the math, then cross off every suspect the rule catches!

CASE #01 · ZOO ESCAPE

CLUE 3 OF 5

ORDER OF OPERATIONS

TALLY THE ZOO TOKENS

Anyone below 500 animal treats has an alibi — cross them off the list!

WORK OUT EVERY SUSPECT

GRETA
(10 + 197) × 3 + 4 = _____

YUSUF
(36 + 11) × 9 + 15 = _____

OLLIE
(18 + 126) × 6 + 8 = _____

CARL
(61 + 67) × 5 + 3 = _____

PETE
(7 + 21) × 6 + 4 = _____

ELSIE
(4 + 119) × 5 + 4 = _____

BONNIE
(73 + 86) × 4 + 2 = _____

FREYA
(2 + 89) × 9 + 13 = _____

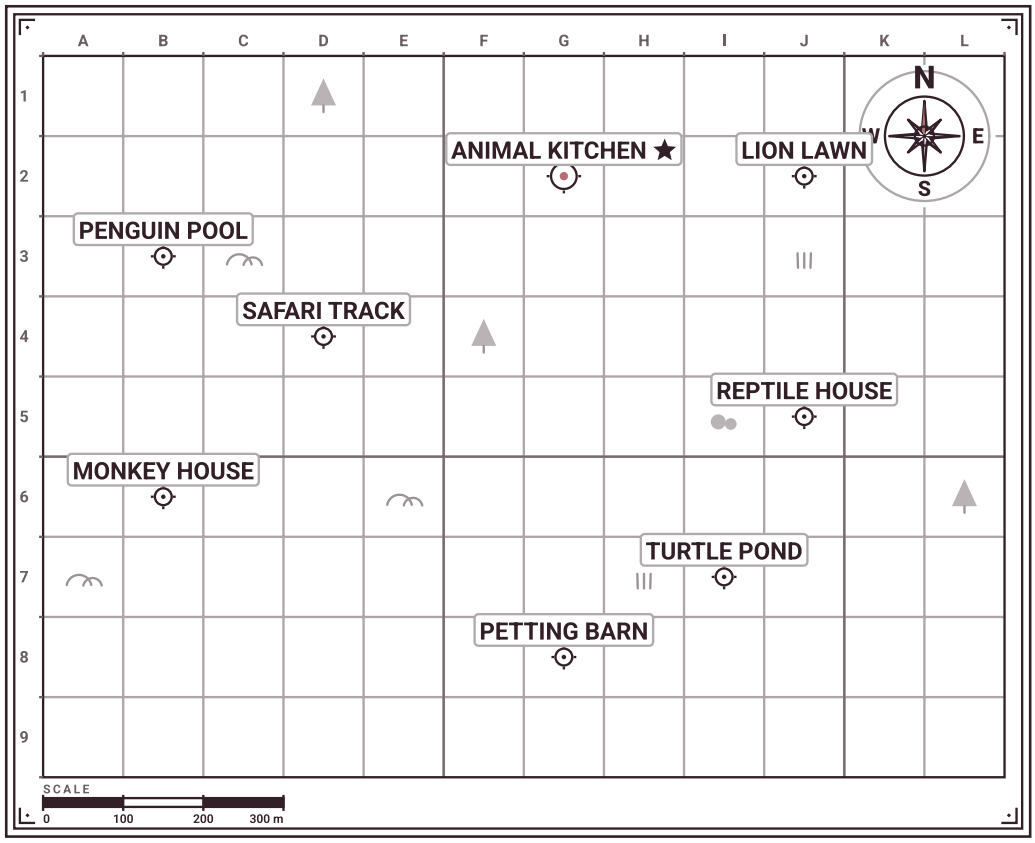
Do the math, then cross off every suspect the rule catches!

CLUE 4 OF 5

MAPS & SCALE

TRACK THE TRACKS

Track the farm trail until it ends at the culprit's hiding spot, then cross off every suspect found somewhere else.



THE TRAIL

Start at the ANIMAL KITCHEN ★

1. Go (5 + 70) × 4 m SOUTH
2. Go (7 + 73) × 5 m WEST
3. Go (2 + 48) × 2 m WEST
4. Go (5 + 35) × 5 m NORTH

WHO WAS SEEN WHERE?

GRETA	PENGUIN POOL
OLLIE	PENGUIN POOL
PETE	SAFARI TRACK
BONNIE	PENGUIN POOL
YUSUF	SAFARI TRACK
CARL	PETTING BARN
ELSIE	REPTILE HOUSE
FREYA	SAFARI TRACK

Trace the trail on the map, find where it ends, and cross off everyone seen elsewhere!

CLUE 5 OF 5

IN & OUT MACHINES

CRACK THE SECRET SIGNAL

SOLVE THE PROBLEMS

R. Rule ×8 + 4: 2 ___ _____

E. Rule ×8 + 2: 6 ___ _____

T. Rule ×8 + 5: 3 ___ _____

D. Rule ×9 + 8: 6 ___ _____

H. Rule ×7 + 4: 2 ___ _____

U. Rule ×4 + 1: 12 ___ _____

C. Rule ×6 + 3: 3 ___ _____

S. Rule ×8 + 5: 6 ___ _____

L. Rule ×4 + 6: 5 ___ _____

P. Rule ×8 + 8: 9 ___ _____

A. Rule ×2 + 6: 4 ___ _____

I. Rule ×9 + 1: 4 ___ _____

CRACK THE CODE

Write each problem's letter in every box that shows its answer.

Self-check: if the boxes spell a real clue sentence, your math is correct!

☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
29	18	50	21	49	26	80	20	37	29	49	53	50	62	14

☐	☐	☐	☐	☐	☐
26	14	62	62	50	20

Now cross off every suspect this clue rules out!

CASE #01 · ZOO ESCAPE

CASE REPORT

The green keeper cap vanished from the animal kitchen. You worked the clues, detective — time to name the culprit.

FINAL CHECK

- [ ] GRETA · the Night watch
- [ ] OLLIE · the Balloon seller
- [ ] PETE · the Photographer
- [ ] BONNIE · the Vet
- [ ] YUSUF · the Gate guard
- [ ] CARL · the Ticket clerk
- [ ] ELSIE · the Zookeeper
- [ ] FREYA · the Tour guide

THE CULPRIT IS: _____

HIDDEN AT: _____

GOT AWAY USING: _____

SHOW YOUR REASONING

Which clue ruled out the most suspects? Clue ____

Name one suspect it cleared — and why the rule caught them:

- [ ] My culprit is the ONLY suspect still standing after all 5 clues.

SECRET LETTER for The Final Mystery → T

CASE CLOSED

CASE #01 · ZOO ESCAPE

THE WARRANT TEST

A real detective proves every part of the case before the arrest. Show that your evidence pins WHO, WHERE and HOW — then decide: is it enough?

WHO **the CULPRIT — which clues leave only one suspect standing?**

Proved with Clue _____ , because

WHERE **the HIDEOUT — where does the map trail end?**

Proved with Clue _____ , because

HOW **the METHOD — what does the final decode reveal?**

Proved with Clue _____ , because

☐ **My case is airtight — I can prove WHO, WHERE and HOW. Make the arrest!**

STOP, DETECTIVE!

The worked answers begin on the next page.

Finish your case report before turning over. The following pages reveal the culprit and show the completed clues.

Parents and grandparents: keep these pages separate if your young detective would like to solve the case independently.

CLUE 1 OF 5

WORD PROBLEMS

HOW FAR DID PONIES TROT?

Cross off every suspect who travelled FEWER than 500 km.

HOW FAR DID EACH SUSPECT GO?

Greta covered 647 km, then 9 more. Total: ___ **656 km**

✓ *647 + 9 = 656 km*

Ollie covered 839 km, then 4 more. Total: ___ **843 km**

✓ *839 + 4 = 843 km*

Pete cycled 7 hours at 98 km per hour, then walked 4 km. Total: ___ **690 km**

✓ *7 × 98 + 4 = 690 km*

Bonnie covered 633 km, then 7 more. Total: ___ **640 km**

✓ *633 + 7 = 640 km*

Yusuf covered 877 km, then 22 more. Total: ___ **899 km**

✓ *877 + 22 = 899 km*

~~Carl covered 339 km, then 5 more. Total: ___~~ **344 km**

✓ *339 + 5 = 344 km*

Elsie cycled 6 hours at 81 km per hour, then walked 19 km. Total: ___ **505 km**

✓ *6 × 81 + 19 = 505 km*

Freya cycled 9 hours at 84 km per hour, then walked 19 km. Total: ___ **775 km**

✓ *9 × 84 + 19 = 775 km*

Rules out: CARL

CLUE 2 OF 5

WORD PROBLEMS

MEASURE THE SAFARI JOURNEY

A big escape! Cross off everyone who went FEWER than 500 km.

HOW FAR DID EACH SUSPECT GO?

Greta covered 634 km, then 6 more. Total: ___ **640 km**

✓ *634 + 6 = 640 km*

Ollie cycled 9 hours at 94 km per hour, then walked 29 km. Total: ___ **875 km**

✓ *9 × 94 + 29 = 875 km*

Pete covered 780 km, then 17 more. Total: ___ **797 km**

✓ *780 + 17 = 797 km*

Bonnie covered 789 km, then 5 more. Total: ___ **794 km**

✓ *789 + 5 = 794 km*

Yusuf covered 573 km, then 28 more. Total: ___ **601 km**

✓ *573 + 28 = 601 km*

Carl covered 629 km, then 16 more. Total: ___ **645 km**

✓ *629 + 16 = 645 km*

~~Elsie cycled 2 hours at 46 km per hour, then walked 13 km. Total: ___~~ **105 km**

✓ *2 × 46 + 13 = 105 km*

Freya covered 733 km, then 13 more. Total: ___ **746 km**

✓ *733 + 13 = 746 km*

Rules out: ELSIE

CLUE 3 OF 5

ORDER OF OPERATIONS

TALLY THE ZOO TOKENS

Anyone below 500 animal treats has an alibi — cross them off the list!

WORK OUT EVERY SUSPECT

GRETA
(10 + 197) × 3 + 4 = 625 animal treats

~~YUSUF~~
(36 + 11) × 9 + 15 = 438 animal treats

OLLIE
(18 + 126) × 6 + 8 = 872 animal treats

CARL
(61 + 67) × 5 + 3 = 643 animal treats

~~PETE~~
(7 + 21) × 6 + 4 = 172 animal treats

ELSIE
(4 + 119) × 5 + 4 = 619 animal treats

BONNIE
(73 + 86) × 4 + 2 = 638 animal treats

FREYA
(2 + 89) × 9 + 13 = 832 animal treats

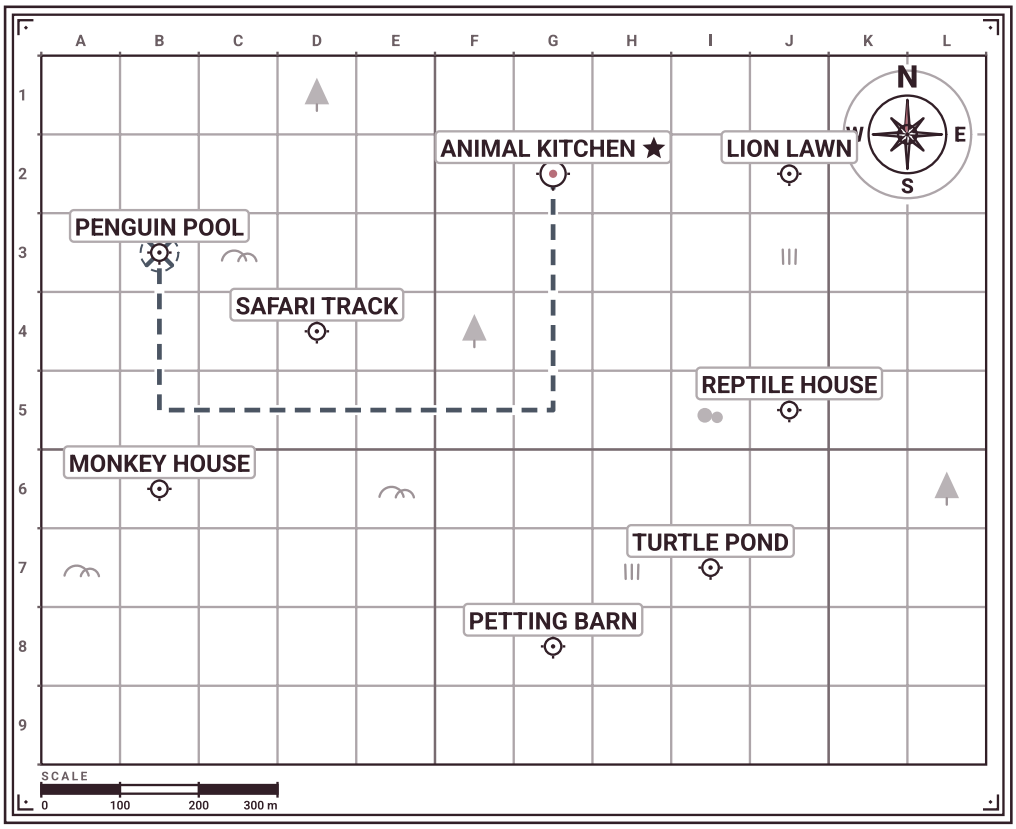
Rules out: YUSUF, PETE

CLUE 4 OF 5

MAPS & SCALE

TRACK THE TRACKS

Track the farm trail until it ends at the culprit's hiding spot, then cross off every suspect found somewhere else.



THE TRAIL

Start at the ANIMAL KITCHEN ★

1. Go (5 + 70) × 4 m SOUTH	= 300
2. Go (7 + 73) × 5 m WEST	= 400
3. Go (2 + 48) × 2 m WEST	= 100
4. Go (5 + 35) × 5 m NORTH	= 200

WHO WAS SEEN WHERE?

GRETA	PENGUIN POOL
OLLIE	PENGUIN POOL
~~PETE~~	SAFARI TRACK
BONNIE	PENGUIN POOL
~~YUSUF~~	SAFARI TRACK
~~CARL~~	PETTING BARN
~~ELSIE~~	REPTILE HOUSE
~~FREYA~~	SAFARI TRACK

The trail ends at the PENGUIN POOL — rules out: FREYA

CLUE 5 OF 5

IN & OUT MACHINES

CRACK THE SECRET SIGNAL

SOLVE THE PROBLEMS

R. Rule ×8 + 4: 2 ___ 20

E. Rule ×8 + 2: 6 ___ 50

T. Rule ×8 + 5: 3 ___ 29

D. Rule ×9 + 8: 6 ___ 62

H. Rule ×7 + 4: 2 ___ 18

U. Rule ×4 + 1: 12 ___ 49

C. Rule ×6 + 3: 3 ___ 21

S. Rule ×8 + 5: 6 ___ 53

L. Rule ×4 + 6: 5 ___ 26

P. Rule ×8 + 8: 9 ___ 80

A. Rule ×2 + 6: 4 ___ 14

I. Rule ×9 + 1: 4 ___ 37

CRACK THE CODE

Write each problem's letter in every box that shows its answer.
Self-check: if the boxes spell a real clue sentence, your math is correct!

T	H	E	C	U	L	P	R	I	T	U	S	E	D	A
29	18	50	21	49	26	80	20	37	29	49	53	50	62	14

L	A	D	D	E	R
26	14	62	62	50	20

Rules out: GRETA, BONNIE

CASE #01 · ZOO ESCAPE · SOLUTION

CASE REPORT

The green keeper cap vanished from the animal kitchen. You worked the clues, detective — time to name the culprit.

FINAL CHECK

- ☒ GRETA · the Night watch
- ☑ **OLLIE · the Balloon seller**
- ☒ PETE · the Photographer
- ☒ BONNIE · the Vet
- ☒ YUSUF · the Gate guard
- ☒ CARL · the Ticket clerk
- ☒ ELSIE · the Zookeeper
- ☒ FREYA · the Tour guide

THE CULPRIT IS: OLLIE

HIDDEN AT: PENGUIN POOL

GOT AWAY USING: A LADDER

SOLVED!

HOW IT WAS SOLVED

Clue 1 cleared CARL. Clue 2 cleared ELSIE. Clue 3 cleared YUSUF & PETE. Clue 4 cleared FREYA. Clue 5 cleared GRETA & BONNIE. Only OLLIE was left standing — that's the culprit!

SECRET LETTER for The Final Mystery → T

CASE CLOSED

CASE #01 · ZOO ESCAPE · SOLUTION

THE WARRANT TEST

A real detective proves every part of the case before the arrest. Show that your evidence pins WHO, WHERE and HOW — then decide: is it enough?

WHO **the CULPRIT — which clues leave only one suspect standing?**

Proved with Clue _____ , because

WHERE **the HIDEOUT — where does the map trail end?**

Proved with Clue _____ , because

HOW **the METHOD — what does the final decode reveal?**

Proved with Clue _____ , because

☐ **My case is airtight — I can prove WHO, WHERE and HOW. Make the arrest!**

Airtight: the elimination clues leave only OLLIE (WHO). The map trail in Clue 4 ends at PENGUIN POOL (WHERE). The final decode spells out A LADDER (HOW).

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