



The Case of the Missing Sunstone

Grade 4 math · Multiplication, Word problems, Multi-step word problems, Skip counting, Division · Reading level grades 3-4

Detective: _____ Date: _____

A sneaky rogue raider has snatched the Sacred Sunstone from the Great Hall! Without its glowing light, the longships cannot navigate the thick northern fog. Chief Halvar needs your help to find the culprit and save the fleet!

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 raider is _____

Possible suspects

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

NAME	VIKING ACTION	VIKING GEAR	OBSERVABLE CLUE	HAIR STYLE	SECRET FEAR
Svein	carving magical wooden runes	wearing a silver wolf pendant	holding a torch in the right hand	braided bright red beard	sneezes around fluffy seal pups
Harald	blowing a loud bronze horn	wearing a silver wolf pendant	holding a torch in the right hand	braided bright red beard	distracted by hot mutton stew
Gisla	taming a wild snowy owl	wearing a shiny horned helmet	holding a torch in the right hand	braided bright red beard	distracted by hot mutton stew
Rollo	blowing a loud bronze horn	wearing a silver wolf pendant	holding a torch in the right hand	dark black twin braids	distracted by hot mutton stew
Freydis	swinging a heavy iron axe	carrying a heavy leather shield	holding a torch in the right hand	long messy yellow hair	distracted by hot mutton stew
Ivar	blowing a loud bronze horn	carrying a heavy leather shield	holding a torch in the left hand	braided bright red beard	distracted by hot mutton stew
Floki	blowing a loud bronze horn	wearing thick polar bear boots	holding a torch in the left hand	long messy yellow hair	scared of tickly green seaweed
Knut	blowing a loud bronze horn	carrying a map of the high seas	holding a torch in the left hand	braided bright red beard	sneezes around fluffy seal pups
Ubba	taming a wild snowy owl	wearing a silver wolf pendant	holding a torch in the right hand	long messy yellow hair	distracted by hot mutton stew
Helga	taming a wild snowy owl	wearing thick polar bear boots	holding a torch in the left hand	braided bright red beard	distracted by hot mutton stew
Erik	rowing a speedy wooden kayak	carrying a heavy leather shield	holding a torch in the right hand	long messy yellow hair	scared of tickly green seaweed
Aslaug	taming a wild snowy owl	wearing thick polar bear boots	holding a torch in the right hand	long messy yellow hair	scared of tickly green seaweed
Bjorn	blowing a loud bronze horn	wearing thick polar bear boots	holding a torch in the right hand	braided bright red beard	distracted by hot mutton stew
Sigrid	carving magical wooden runes	wearing thick polar bear boots	holding a torch in the right hand	dark black twin braids	sneezes around fluffy seal pups
Torstein	rowing a speedy wooden kayak	wearing a silver wolf pendant	holding a torch in the right hand	long messy yellow hair	distracted by hot mutton stew
Astrid	swinging a heavy iron axe	wearing a silver wolf pendant	holding a torch in the right hand	braided bright red beard	distracted by hot mutton stew
Ragnar	carving magical wooden runes	wearing a silver wolf pendant	holding a torch in the left hand	braided bright red beard	distracted by hot mutton stew
Arvid	taming a wild snowy owl	wearing a silver wolf pendant	holding a torch in the right hand	braided bright red beard	distracted by hot mutton stew
Hilda	taming a wild snowy owl	wearing a shiny horned helmet	holding a torch in the right hand	dark black twin braids	distracted by hot mutton stew
Gunnar	carving magical wooden runes	wearing a shiny horned helmet	holding a torch in the right hand	long messy yellow hair	scared of tickly green seaweed
Lagertha	blowing a loud bronze horn	carrying a heavy leather shield	holding a torch in the right hand	dark black twin braids	scared of tickly green seaweed

CLUE 1
Multiplication facts (1-12)

We found the culprit's footprints in the muddy garden! The prints are stamped in neat rows. Multiply the rows of muddy prints to find the first clue.

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

T																	T
22	36	24	96	25	11	11	54	25	35	3	20	24	70	35	20	22	

																T
77	24	54	45	54	36	20	45	35	24	3	36	24	11	88	24	22

$11 \times 2 = \square \rightarrow$ T	$3 \times 12 = \square \rightarrow$ H	$5 \times 5 = \square \rightarrow$ I
$1 \times 11 = \square \rightarrow$ L	$11 \times 7 = \square \rightarrow$ W	$8 \times 12 = \square \rightarrow$ V
$3 \times 1 = \square \rightarrow$ D	$9 \times 5 = \square \rightarrow$ R	$2 \times 12 = \square \rightarrow$ E
$10 \times 7 = \square \rightarrow$ S	$6 \times 9 = \square \rightarrow$ A	$11 \times 8 = \square \rightarrow$ M
$7 \times 5 = \square \rightarrow$ N	$2 \times 10 = \square \rightarrow$ O	

Scratch space:

CLUE 2

Word problems

A witness saw someone running past the longships at sunrise. Solve this math puzzle about the oars on the deck to unlock what they saw.

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

A witness saw the villain was

H								A	T		R	C	H			T	H	E	R			H	T	H	A		
80	21	6	56	58	72	62				21			80	58	72		80			58	62	80		80		72	56

Viking scout lined up 10 rows of 8 salted herring. How many salted herring in all?

Answer: → **H**

There were 40 silver coin. 19 were used up. How many silver coin are left?

Answer: → **O**

Viking scout found 4 iron helmet yesterday and 2 more today. How many iron helmet in all?

Answer: → **L**

Viking scout found 7 runic tablet yesterday and 51 more today. How many runic tablet in all?

Answer: → **I**

Viking scout lined up 8 rows of 9 iron helmet. How many iron helmet in all?

Answer: → **N**

There were 83 silver coin. 21 were used up. How many silver coin are left?

Answer: → **G**

Viking scout lined up 7 rows of 8 wooden shield. How many wooden shield in all?

Answer: → **D**

Scratch space:

CLUE 3

Multi-step word problems

The guards are counting the iron shields left in the armory. Some shields were taken and some were returned. Solve the steps to get the final count!

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

Someone scared the villain off with

D								E	D	B	Y	H	O		M	U			O	N			E	W
83	65	57	80	59	27	17	80	83					80			80	80				57	80		

Viking scout earned 8 runic tablet in each of 4 rounds, plus 64 bonus runic tablet. Then 13 runic tablet were lost. How many runic tablet are left?

Answer: → **D**

Viking scout collected 445 runic tablet in the morning and 35 runic tablet in the afternoon, then split them equally among 6 Great Hall Clan. How many runic tablet did each get?

Answer: → **T**

There were 208 runic tablet in all. 31 runic tablet were set aside. The rest were shared equally among 3 Great Hall Clan. How many runic tablet did each get?

Answer: → **R**

There were 92 silver coin in all. 1 Great Hall Clan used 7 silver coin each. The other 5 Great Hall Clan shared the rest equally. How many silver coin did each of the other Great Hall Clan get?

Answer: → **C**

Viking scout collected 131 runic tablet in the morning and 64 runic tablet in the afternoon, then split them equally among 3 Great Hall Clan. How many runic tablet did each get?

Answer: → **I**

There were 181 wooden shield in all. 1 Great Hall Clan used 19 wooden shield each. The other 6 Great Hall Clan shared the rest equally. How many wooden shield did each of the other Great Hall Clan get?

Answer: → **A**

Viking scout earned 6 silver coin in each of 3 rounds, plus 53 bonus silver coin. Then 14 silver coin were lost. How many silver coin are left?

Answer: → **S**

Scratch space:

CLUE 4 Skip counting

We are tracking the raider across the stone steps. They jumped over steps in a steady pattern. Skip count the numbers to see where they landed.

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

W																	
70	80	22	140	18	130	36	42	80	36	21	65	110	42				
9	12	110	130	30	110	130	30	28	140	28	21	80	40	80	130	9	21

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, __, 75, 80 → **W**

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **E**

Skip-count by 3s. Fill the blank: 3, 6, __, 12, 15 → **C**

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **L**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **B**

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **N**

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

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

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **H**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **D**

Scratch space:

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

The kitchen helpers are sharing hot loaves of flatbread among the search parties. Divide the food evenly to get the final clue from the cook!

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:

$66 \div 11 = \boxed{}$

$2 \div 2 = \boxed{}$

$6 \div 2 = \boxed{}$

$27 \div 3 = \boxed{}$

$60 \div 6 = \boxed{}$

$40 \div 10 = \boxed{}$

$70 \div 10 = \boxed{}$

$16 \div 2 = \boxed{}$

$15 \div 3 = \boxed{}$

$99 \div 9 = \boxed{}$

$8 \div 4 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain blows a loud bronze horn to cause a distraction, then scuffs the floor with thick polar bear boots.
2. The villain calls a wild snowy owl to snatch the prize, then blocks the path with a heavy leather shield.
3. The villain blows a loud bronze horn to cause a distraction, then drops a silver wolf pendant in the mud.
4. The villain blows a loud bronze horn to cause a distraction, then loses a shiny horned helmet in the rush.
5. The villain swings a heavy iron axe to break the lock, then scuffs the floor with thick polar bear boots.
6. The villain calls a wild snowy owl to snatch the prize, then drops a silver wolf pendant in the mud.
7. The villain swings a heavy iron axe to break the lock, then loses a shiny horned helmet in the rush.
8. The villain rows a speedy wooden kayak to make a getaway, then drops a silver wolf pendant in the mud.
9. The villain blows a loud bronze horn to cause a distraction, then blocks the path with a heavy leather shield.
10. The villain rows a speedy wooden kayak to make a getaway, then scuffs the floor with thick polar bear boots.
11. The villain calls a wild snowy owl to snatch the prize, then scuffs the floor with thick polar bear boots.
12. The villain swings a heavy iron axe to break the lock, then drops a silver wolf pendant in the mud.

Answer Key

The Case of the Missing Sunstone

Culprit: Astrid

swinging a heavy iron axe · wearing a silver wolf pendant · holding a torch in the right hand · braided bright red beard · distracted by hot mutton stew

Trail: Start 21 → Clue 1 18 → Clue 2 13 → Clue 3 8 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT WEAR A HORNED HELMET"

$11 \times 2 = 22$ (T) · $3 \times 12 = 36$ (H) · $5 \times 5 = 25$ (I) · $1 \times 11 = 11$ (L) · $11 \times 7 = 77$ (W) · $8 \times 12 = 96$ (V) · $3 \times 1 = 3$ (D) · $9 \times 5 = 45$ (R) · $2 \times 12 = 24$ (E) · $10 \times 7 = 70$ (S) · $6 \times 9 = 54$ (A) · $11 \times 8 = 88$ (M) · $7 \times 5 = 35$ (N) · $2 \times 10 = 20$ (O)

Clue 2 (Word problems): "HOLDING A TORCH IN THE RIGHT HAND"

Viking scout lined up 10 rows of 8 salted herring. How many salted herring in all? = 80 (H) · There were 40 silver coin. 19 were used up. How many silver coin are left? = 21 (O) · Viking scout found 4 iron helmet yesterday and 2 more today. How many iron helmet in all? = 6 (L) · Viking scout found 7 runic tablet yesterday and 51 more today. How many runic tablet in all? = 58 (I) · Viking scout lined up 8 rows of 9 iron helmet. How many iron helmet in all? = 72 (N) · There were 83 silver coin. 21 were used up. How many silver coin are left? = 62 (G) · Viking scout lined up 7 rows of 8 wooden shield. How many wooden shield in all? = 56 (D)

Clue 3 (Multi-step word problems): "DISTRACTED BY HOT MUTTON STEW"

Viking scout earned 8 runic tablet in each of 4 rounds, plus 64 bonus runic tablet. Then 13 runic tablet were lost. How many runic tablet are left? = 83 (D) · Viking scout collected 445 runic tablet in the morning and 35 runic tablet in the afternoon, then split them equally among 6 Great Hall Clan. How many runic tablet did each get? = 80 (T) · There were 208 runic tablet in all. 31 runic tablet were set aside. The rest were shared equally among 3 Great Hall Clan. How many runic tablet did each get? = 59 (R) · There were 92 silver coin in all. 1 Great Hall Clan used 7 silver coin each. The other 5 Great Hall Clan shared the rest equally. How many silver coin did each of the other Great Hall Clan get? = 17 (C) · Viking scout collected 131 runic tablet in the morning and 64 runic tablet in the afternoon, then split them equally among 3 Great Hall Clan. How many runic tablet did each get? = 65 (I) · There were 181 wooden shield in all. 1 Great Hall Clan used 19 wooden shield each. The other 6 Great Hall Clan shared the rest equally. How many wooden shield did each of the other Great Hall Clan get? = 27 (A) · Viking scout earned 6 silver coin in each of 3 rounds, plus 53 bonus silver coin. Then 14 silver coin were lost. How many silver coin are left? = 57 (S)

Clue 4 (Skip counting): "WE FOUND RED HAIR CLINGING TO THE BENCH"

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

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

$66 \div 11 = 6$ · $2 \div 2 = 1$ · $6 \div 2 = 3$ · $27 \div 3 = 9$ · $60 \div 6 = 10$ · $40 \div 10 = 4$ · $70 \div 10 = 7$ · $16 \div 2 = 8$ · $15 \div 3 = 5$ · $99 \div 9 = 11$ · $8 \div 4 = 2$