



The Sanctuary Sabotage

Grade 4 math · Addition, Subtraction, Fractions of a number, Word problems · Reading level grades 3-4

Detective: _____ Date: _____

A golden dragon egg has been swiped from the Hatchery! One of our trainee riders has gone rogue. We must track them down before the egg hatches in the wild.

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 rider is _____

Possible suspects

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

NAME	DRAGON SPECIES	RIDER GEAR	RIDING STYLE	HELMET PLUME	FAVORITE TREAT
Arya	Frostfang	Dragon Map	Left-handed	Ruby plume	Sweet nectar
Wyvern	Shadowclaw	Flame Whistle	Right-handed	Sapphire plume	Fire-grass
Fishlegs	Emberwing	Wind Goggles	Right-handed	Ruby plume	Sweet nectar
Pyre	Sunscale	Fireproof Shield	Left-handed	Emerald plume	Moonberries
Murtagh	Frostfang	Dragon Map	Right-handed	Ruby plume	Moonberries
Snotlout	Emberwing	Fireproof Shield	Right-handed	Emerald plume	Fire-grass
Scales	Shadowclaw	Dragon Map	Right-handed	Ruby plume	Moonberries
Ridley	Sunscale	Dragon Map	Right-handed	Ruby plume	Moonberries
Ignis	Frostfang	Fireproof Shield	Left-handed	Emerald plume	Fire-grass
Tuffnut	Shadowclaw	Flame Whistle	Right-handed	Emerald plume	Moonberries
Ember	Shadowclaw	Wind Goggles	Right-handed	Ruby plume	Moonberries
Basil	Frostfang	Fireproof Shield	Left-handed	Sapphire plume	Sweet nectar
Talon	Stormcrest	Dragon Map	Right-handed	Emerald plume	Fire-grass
Eragon	Sunscale	Fireproof Shield	Left-handed	Ruby plume	Moonberries
Astrid	Shadowclaw	Ice Saddle	Right-handed	Ruby plume	Moonberries
Angela	Sunscale	Wind Goggles	Left-handed	Sapphire plume	Moonberries
Blaze	Emberwing	Fireproof Shield	Left-handed	Ruby plume	Moonberries
Spark	Stormcrest	Fireproof Shield	Left-handed	Emerald plume	Sweet nectar
Hiccup	Frostfang	Fireproof Shield	Right-handed	Emerald plume	Sweet nectar
Drake	Frostfang	Dragon Map	Right-handed	Emerald plume	Moonberries
Jax	Sunscale	Flame Whistle	Left-handed	Ruby plume	Sweet nectar

CLUE 1 Addition

We found the first clue by adding up the glowing fire-stones in the nest.

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

$$3048 + 3337 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$3176 + 3716 = \boxed{} \rightarrow \boxed{\text{A}}$$

$1363 + 1022 = \boxed{} \rightarrow \boxed{}$

$$3277 + 4470 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$1356 + 1337 = \boxed{} \rightarrow \boxed{0}$$

$$1871 + 1218 = \boxed{} \rightarrow \boxed{\mathbf{D}}$$

$4206 + 2576 = \boxed{} \rightarrow \mathbf{G}$

$$1664 + 1064 = \boxed{} \rightarrow \boxed{\text{U}}$$

$$1485 + 2962 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$1326 + 2470 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$3604 + 2268 = \boxed{} \rightarrow \boxed{\text{H}}$$

$1040 + 1794 = \boxed{} \rightarrow \boxed{\text{C}}$

$$5597 + 2432 = \boxed{} \rightarrow \boxed{\text{L}}$$

$1876 + 4372 = \boxed{} \rightarrow \boxed{\text{E}}$

Scratch space:

CLUE 2

Subtraction

We subtracted the broken gear from the main chest to find the next clue.

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

T																
6708	2728	8497	5917	8497	1527	7109	6768	1350	8497	5917	8497	2728	8497	8572	3684	1527 7109

T						T				
6708	2728	8497	5917	1527	2374	2728	6708	2728	4630	7109 3684

$$7611 - 903 = \boxed{} \rightarrow \boxed{T}$$

$$5489 - 859 = \boxed{} \rightarrow \boxed{A}$$

$$11792 - 3220 = \boxed{} \rightarrow \boxed{L}$$

$$8560 - 63 = \boxed{} \rightarrow \boxed{E}$$

$$7610 - 1693 = \boxed{} \rightarrow \boxed{R}$$

$$4240 - 1866 = \boxed{} \rightarrow \boxed{G}$$

$$8186 - 4502 = \boxed{} \rightarrow \boxed{D}$$

$$3524 - 1997 = \boxed{} \rightarrow \boxed{I}$$

$$10479 - 3711 = \boxed{} \rightarrow \boxed{S}$$

$$5182 - 3832 = \boxed{} \rightarrow \boxed{W}$$

$$9360 - 2251 = \boxed{} \rightarrow \boxed{N}$$

$$4300 - 1572 = \boxed{} \rightarrow \boxed{H}$$

Scratch space:

CLUE 3

Fractions of a number

One-third of the sleeping dragons woke up and pointed us to this clue.

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

T																	
21	29	11	33	38	39	8	25	40	7	40	39	35	19	11	33	25	40

13	25	25	40	4	11	38	38	34	11	7

$$1/8 \text{ of } 168 = \boxed{} \rightarrow \boxed{\text{T}}$$

$$1/5 \text{ of } 175 = \boxed{} \rightarrow \boxed{\text{C}}$$

$$1/5 \text{ of } 95 = \boxed{} \rightarrow \boxed{\text{K}}$$

$$5/6 \text{ of } 30 = \boxed{} \rightarrow \boxed{\text{O}}$$

$$2/8 \text{ of } 52 = \boxed{} \rightarrow \boxed{\text{M}}$$

$$3/5 \text{ of } 65 = \boxed{} \rightarrow \boxed{\text{A}}$$

$$1/3 \text{ of } 114 = \boxed{} \rightarrow \boxed{\text{R}}$$

$$1/4 \text{ of } 28 = \boxed{} \rightarrow \boxed{\text{S}}$$

$$2/6 \text{ of } 102 = \boxed{} \rightarrow \boxed{\text{I}}$$

$$1/8 \text{ of } 64 = \boxed{} \rightarrow \boxed{\text{G}}$$

$$4/6 \text{ of } 60 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$4/8 \text{ of } 22 = \boxed{} \rightarrow \boxed{\text{E}}$$

$$2/4 \text{ of } 58 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$1/2 \text{ of } 8 = \boxed{} \rightarrow \boxed{\text{B}}$$

$$1/5 \text{ of } 165 = \boxed{} \rightarrow \boxed{\text{D}}$$

Scratch space:

CLUE 4

Word problems

Solve this puzzle about flying speed to unlock the message on the wall.

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

A strand of R E hair turned up at the scene.

62 63 41 20 32 55 63 56

There were 98 dragon treats. 36 were used up. How many dragon treats are left?

Answer: → R

Trainer found 27 golden eggs yesterday and 5 more today. How many golden eggs in all?

Answer: → P

Trainer lined up 10 rows of 2 shiny scales. How many shiny scales in all?

Answer: → Y

Trainer lined up 8 rows of 7 fire-stones. How many fire-stones in all?

Answer: → M

Trainer found 2 practice hoops yesterday and 61 more today. How many practice hoops in all?

Answer: → U

There were 57 fire-stones. 16 were used up. How many fire-stones are left?

Answer: → B

Trainer found 29 dragon treats yesterday and 26 more today. How many dragon treats in all?

Answer: → L

Scratch space:

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

The keeper shared half of the star-fruit to reveal the final clue.

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:

$1/6 \text{ of } 54 = \boxed{}$

$1/3 \text{ of } 18 = \boxed{}$

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

$2/10 \text{ of } 55 = \boxed{}$

$2/4 \text{ of } 4 = \boxed{}$

$2/5 \text{ of } 20 = \boxed{}$

$1/2 \text{ of } 2 = \boxed{}$

$2/10 \text{ of } 60 = \boxed{}$

$2/10 \text{ of } 25 = \boxed{}$

$4/6 \text{ of } 15 = \boxed{}$

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

Step 2 - cross out the sentence with each answer:

1. The villain shines brightly on a Sunscale, then blocks the sparks with a Fireproof Shield.
2. The villain hides in shadows on a Shadowclaw, then blasts a loud Flame Whistle.
3. The villain hides in shadows on a Shadowclaw, then peers through shiny Wind Goggles.
4. The villain hides in shadows on a Shadowclaw, then slides away on an Ice Saddle.
5. The villain shines brightly on a Sunscale, then peers through shiny Wind Goggles.
6. The villain shines brightly on a Sunscale, then checks the route on a Dragon Map.
7. The villain freezes the sky on a Frostfang, then checks the route on a Dragon Map.
8. The villain shines brightly on a Sunscale, then slides away on an Ice Saddle.
9. The villain hides in shadows on a Shadowclaw, then checks the route on a Dragon Map.
10. The villain freezes the sky on a Frostfang, then blasts a loud Flame Whistle.
11. The villain soars high on an Emberwing, then checks the route on a Dragon Map.
12. The villain freezes the sky on a Frostfang, then blocks the sparks with a Fireproof Shield.

Answer Key

The Sanctuary Sabotage

Culprit: Ember

Shadowclaw · Wind Goggles · Right-handed · Ruby plume · Moonberries

Trail: Start 21 → Clue 1 20 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE ROGUE DOES NOT USE AN ICE SADDLE"

$3048 + 3337 = 6385$ (T) · $3176 + 3716 = 6892$ (A) · $1363 + 1022 = 2385$ (I) · $3277 + 4470 = 7747$ (R) · $1356 + 1337 = 2693$ (O) · $1871 + 1218 = 3089$ (D) · $4206 + 2576 = 6782$ (G) · $1664 + 1064 = 2728$ (U) · $1485 + 2962 = 4447$ (N) · $1326 + 2470 = 3796$ (S) · $3604 + 2268 = 5872$ (H) · $1040 + 1794 = 2834$ (C) · $5597 + 2432 = 8029$ (L) · $1876 + 4372 = 6248$ (E)

Clue 2 (Subtraction): "THE REINS WERE HELD IN THE RIGHT HAND"

$7611 - 903 = 6708$ (T) · $5489 - 859 = 4630$ (A) · $11792 - 3220 = 8572$ (L) · $8560 - 63 = 8497$ (E) · $7610 - 1693 = 5917$ (R) · $4240 - 1866 = 2374$ (G) · $8186 - 4502 = 3684$ (D) · $3524 - 1997 = 1527$ (I) · $10479 - 3711 = 6768$ (S) · $5182 - 3832 = 1350$ (W) · $9360 - 2251 = 7109$ (N) · $4300 - 1572 = 2728$ (H)

Clue 3 (Fractions of a number): "THE DRAGON SNACKED ON MOONBERRIES"

$1/8$ of 168 = 21 (T) · $1/5$ of 175 = 35 (C) · $1/5$ of 95 = 19 (K) · $5/6$ of 30 = 25 (O) · $2/8$ of 52 = 13 (M) · $3/5$ of 65 = 39 (A) · $1/3$ of 114 = 38 (R) · $1/4$ of 28 = 7 (S) · $2/6$ of 102 = 34 (I) · $1/8$ of 64 = 8 (G) · $4/6$ of 60 = 40 (N) · $4/8$ of 22 = 11 (E) · $2/4$ of 58 = 29 (H) · $1/2$ of 8 = 4 (B) · $1/5$ of 165 = 33 (D)

Clue 4 (Word problems): "RUBY PLUME"

There were 98 dragon treats. 36 were used up. How many dragon treats are left? = 62 (R) · Trainer found 27 golden eggs yesterday and 5 more today. How many golden eggs in all? = 32 (P) · Trainer lined up 10 rows of 2 shiny scales. How many shiny scales in all? = 20 (Y) · Trainer lined up 8 rows of 7 fire-stones. How many fire-stones in all? = 56 (M) · Trainer found 2 practice hoops yesterday and 61 more today. How many practice hoops in all? = 63 (U) · There were 57 fire-stones. 16 were used up. How many fire-stones are left? = 41 (B) · Trainer found 29 dragon treats yesterday and 26 more today. How many dragon treats in all? = 55 (L)

Clue 5 (Fractions of a number): surviving statement is box 3 → Ember

$1/6$ of 54 = 9 · $1/3$ of 18 = 6 · $7/10$ of 10 = 7 · $2/10$ of 55 = 11 · $2/4$ of 4 = 2 · $2/5$ of 20 = 8 · $1/2$ of 2 = 1 · $2/10$ of 60 = 12 · $2/10$ of 25 = 5 · $4/6$ of 15 = 10 · $4/8$ of 8 = 4