



The Case of the Golden Pineapple

Grade 3 math · Multiplication, Word problems, Multi-step word problems, Fractions of a number · Reading level grades 3-4

Detective: _____ Date: _____

Oh no! Someone took the Golden Pineapple from the Chief Island Baker's kitchen. This special fruit keeps the floating islands in the air! The Sky Patrol needs your help to track down the tricky Sky Pirate who did it before the islands start to sink.

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 Sky Pirate is _____

Possible suspects

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

NAME	SIGNATURE TOOL	AIRSHIP UPGRADE	STEERING STYLE	GOGGLE LENSES	SILLY FEAR
Dexter Drift	Grappling Hook	Cloud Shield	Right Handed Steering	Green Goggles	Loud Sneezes
Sally Sky	Wind Whistle	Steam Booster	Right Handed Steering	Green Goggles	Loud Sneezes
Captain Kate	Wind Whistle	Turbo Propeller	Right Handed Steering	Green Goggles	Loud Sneezes
Henry Hover	Grappling Hook	Rainbow Sail	Right Handed Steering	Blue Goggles	Tickle Feathers
Pip Squeak	Pocket Glider	Steam Booster	Right Handed Steering	Green Goggles	Loud Sneezes
Finley Float	Grappling Hook	Cloud Shield	Left Handed Steering	Green Goggles	Squeaky Toys
Zippy Zoom	Wind Whistle	Steam Booster	Left Handed Steering	Green Goggles	Loud Sneezes
Penny Pluck	Bubble Blaster	Anchor Magnet	Right Handed Steering	Blue Goggles	Loud Sneezes
Skyler Wing	Grappling Hook	Rainbow Sail	Left Handed Steering	Green Goggles	Loud Sneezes
Rusty Anchor	Pocket Glider	Steam Booster	Right Handed Steering	Orange Goggles	Tickle Feathers
Willa Wind	Grappling Hook	Anchor Magnet	Right Handed Steering	Green Goggles	Loud Sneezes
Stormy Stella	Wind Whistle	Steam Booster	Left Handed Steering	Blue Goggles	Squeaky Toys
Captain Barnaby	Solar Spyglass	Cloud Shield	Left Handed Steering	Green Goggles	Squeaky Toys
Sunny Sails	Wind Whistle	Steam Booster	Left Handed Steering	Green Goggles	Squeaky Toys
Oliver Ozone	Wind Whistle	Cloud Shield	Left Handed Steering	Blue Goggles	Tickle Feathers
Cloudy Carl	Grappling Hook	Turbo Propeller	Right Handed Steering	Blue Goggles	Loud Sneezes
Breezy Bob	Pocket Glider	Cloud Shield	Right Handed Steering	Green Goggles	Loud Sneezes
Captain Cody	Bubble Blaster	Rainbow Sail	Right Handed Steering	Green Goggles	Squeaky Toys
Bella Balloon	Bubble Blaster	Anchor Magnet	Left Handed Steering	Blue Goggles	Loud Sneezes
Marina Mist	Solar Spyglass	Anchor Magnet	Right Handed Steering	Blue Goggles	Loud Sneezes
Gale Force	Pocket Glider	Rainbow Sail	Left Handed Steering	Green Goggles	Loud Sneezes

Multiplication facts (1-12)

We found the pirate's cargo crates stacked in equal rows on the launch pad. Let's multiply the rows to find the total crates and open the first lock!

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

48 14 15 18 132 1 88 48 15 7 40 15 25 4 40 48 100 25 15

88 25 48 15 88 144 110 40 40 25 48 15 1

$8 \times 6 = \boxed{} \rightarrow \boxed{\text{T}}$

$$11 \times 12 = \boxed{} \rightarrow \left[\begin{array}{l} \text{I} \\ \text{II} \\ \text{III} \\ \text{IV} \\ \text{V} \\ \text{VI} \\ \text{VII} \\ \text{VIII} \\ \text{IX} \\ \text{X} \end{array} \right]$$

$$3 \times 5 = \boxed{} \rightarrow \boxed{\text{E}}$$

$7 \times 1 = \boxed{} \rightarrow \boxed{\mathbf{D}}$

$10 \times 10 = \boxed{} \rightarrow \boxed{\text{U}}$

$2 \times 2 = \square \rightarrow \boxed{\mathbf{N}}$

$$5 \times 8 = \boxed{} \rightarrow \boxed{0}$$

$$11 \times 8 = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

$$9 \times 2 = \boxed{} \rightarrow \boxed{\mathbf{P}}$$

$1 \times 1 = \boxed{} \rightarrow \boxed{\mathbf{R}}$

$7 \times 2 = \boxed{} \rightarrow \boxed{\text{H}}$

$12 \times 12 = \boxed{} \rightarrow \boxed{\text{M}}$

$5 \times 5 = \square \rightarrow \mathbf{S}$

$11 \times 10 = \boxed{} \rightarrow \boxed{\mathbf{B}}$

Scratch space:

CLUE 2

Word problems

The ship's logbook has a word riddle about the number of supply bags on board. Solve the puzzle to unlock the second deck!

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
S

E
E
R

6 46 74 9 54 9 26 71 54 6 46 71 74

Barnaby lined up 3 rows of 2 sparkle gems. How many sparkle gems in all?

Answer: → R

There were 57 sparkle gems. 31 were used up. How many sparkle gems are left?

Answer: → A

There were 81 sparkle gems. 27 were used up. How many sparkle gems are left?

Answer: → T

There were 101 toy compasses. 30 were used up. How many toy compasses are left?

Answer: → N

Barnaby found 33 sky maps yesterday and 13 more today. How many sky maps in all?

Answer: → I

Barnaby found 2 sparkle gems yesterday and 7 more today. How many sparkle gems in all?

Answer: → H

Barnaby found 7 sparkle gems yesterday and 67 more today. How many sparkle gems in all?

Answer: → G

Scratch space:

CLUE 3

Multi-step word problems

To open the heavy cabin door, we must solve a multi-step challenge using the weights of different golden keys. Keep track of each step carefully!

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

Someone scared the villain off with L Z .

33 22 13 12 19 39 31 31 31 19

There were 115 cloud berries in all. 16 cloud berries were set aside. The rest were shared equally among 3 Sky Patrol. How many cloud berries did each get?

Answer: → L

There were 71 sparkle gems in all. 9 sparkle gems were set aside. The rest were shared equally among 2 Sky Patrol. How many sparkle gems did each get?

Answer: → E

Barnaby collected 23 wind crackers in the morning and 72 wind crackers in the afternoon, then split them equally among 5 Sky Patrol. How many wind crackers did each get?

Answer: → S

Barnaby earned 8 sparkle gems in each of 5 rounds, plus 6 bonus sparkle gems. Then 7 sparkle gems were lost. How many sparkle gems are left?

Answer: → N

There were 91 wind crackers in all. 3 wind crackers were set aside. The rest were shared equally among 4 Sky Patrol. How many wind crackers did each get?

Answer: → O

Barnaby collected 35 sky maps in the morning and 13 sky maps in the afternoon, then split them equally among 4 Sky Patrol. How many sky maps did each get?

Answer: → D

There were 81 sky maps in all. 3 Sky Patrol used 14 sky maps each. The other 3 Sky Patrol shared the rest equally. How many sky maps did each of the other Sky Patrol get?

Answer: → U

Scratch space:

CLUE 4

Fractions of a number

A scrap of paper shows a fraction of the fleet's total airships. Work out this fraction to see which flight path the pirate took!

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

G					G		G	G							
19	16	14	14	28	19	35	19	19	13	14	13	14	28	24	14
3	14	16	14	13	14	32	11	21	14	20	2	28	4		

$2/8 \text{ of } 76 = \square \rightarrow \boxed{\text{G}}$

$1/5 \text{ of } 105 = \square \rightarrow \boxed{\text{B}}$

$4/5 \text{ of } 20 = \square \rightarrow \boxed{\text{R}}$

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

$6/10 \text{ of } 5 = \square \rightarrow \boxed{\text{W}}$

$3/6 \text{ of } 8 = \square \rightarrow \boxed{\text{D}}$

$3/6 \text{ of } 28 = \square \rightarrow \boxed{\text{E}}$

$2/10 \text{ of } 120 = \square \rightarrow \boxed{\text{S}}$

$5/10 \text{ of } 64 = \square \rightarrow \boxed{\text{F}}$

$2/4 \text{ of } 56 = \square \rightarrow \boxed{\text{N}}$

$1/10 \text{ of } 200 = \square \rightarrow \boxed{\text{H}}$

$7/10 \text{ of } 50 = \square \rightarrow \boxed{\text{O}}$

$1/4 \text{ of } 52 = \square \rightarrow \boxed{\text{L}}$

$1/5 \text{ of } 10 = \square \rightarrow \boxed{\text{I}}$

Scratch space:

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

The secret compartment requires us to calculate a fraction of the pirate's star map coordinate. Find the exact fraction 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:

$3/6 \text{ of } 8 = \boxed{}$

$1/10 \text{ of } 20 = \boxed{}$

$4/10 \text{ of } 30 = \boxed{}$

$1/2 \text{ of } 16 = \boxed{}$

$5/10 \text{ of } 22 = \boxed{}$

$1/2 \text{ of } 20 = \boxed{}$

$1/2 \text{ of } 14 = \boxed{}$

$3/4 \text{ of } 12 = \boxed{}$

$1/6 \text{ of } 18 = \boxed{}$

$3/6 \text{ of } 2 = \boxed{}$

$4/8 \text{ of } 12 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain swings on a grappling hook, then escapes using a steam booster.
2. The villain swings on a grappling hook, then flies high with an anchor magnet.
3. The villain shoots a giant bubble blaster, then hides behind a cloud shield.
4. The villain blows a loud wind whistle, then zooms off with a turbo propeller.
5. The villain swings on a grappling hook, then hides behind a cloud shield.
6. The villain peers through a solar spyglass, then escapes using a steam booster.
7. The villain soars on a pocket glider, then escapes using a steam booster.
8. The villain blows a loud wind whistle, then escapes using a steam booster.
9. The villain blows a loud wind whistle, then hides behind a cloud shield.
10. The villain peers through a solar spyglass, then zooms off with a turbo propeller.
11. The villain soars on a pocket glider, then speeds away under a rainbow sail.
12. The villain soars on a pocket glider, then hides behind a cloud shield.

Answer Key

The Case of the Golden Pineapple

Culprit: Dexter Drift

Grappling Hook · Cloud Shield · Right Handed Steering · Green Goggles · Loud Sneezes

Trail: Start 21 → Clue 1 15 → Clue 2 9 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE PIRATE DOES NOT USE A STEAM BOOSTER"

$8 \times 6 = 48$ (T) · $11 \times 12 = 132$ (I) · $3 \times 5 = 15$ (E) · $7 \times 1 = 7$ (D) · $10 \times 10 = 100$ (U) · $2 \times 2 = 4$ (N) · $5 \times 8 = 40$ (O) · $11 \times 8 = 88$ (A) · $9 \times 2 = 18$ (P) · $1 \times 1 = 1$ (R) · $7 \times 2 = 14$ (H) · $12 \times 12 = 144$ (M) · $5 \times 5 = 25$ (S) · $11 \times 10 = 110$ (B)

Clue 2 (Word problems): "RIGHT HANDED STEERING"

Barnaby lined up 3 rows of 2 sparkle gems. How many sparkle gems in all? = 6 (R) · There were 57 sparkle gems. 31 were used up. How many sparkle gems are left? = 26 (A) · There were 81 sparkle gems. 27 were used up. How many sparkle gems are left? = 54 (T) · There were 101 toy compasses. 30 were used up. How many toy compasses are left? = 71 (N) · Barnaby found 33 sky maps yesterday and 13 more today. How many sky maps in all? = 46 (I) · Barnaby found 2 sparkle gems yesterday and 7 more today. How many sparkle gems in all? = 9 (H) · Barnaby found 7 sparkle gems yesterday and 67 more today. How many sparkle gems in all? = 74 (G)

Clue 3 (Multi-step word problems): "LOUD SNEEZES"

There were 115 cloud berries in all. 16 cloud berries were set aside. The rest were shared equally among 3 Sky Patrol. How many cloud berries did each get? = 33 (L) · There were 71 sparkle gems in all. 9 sparkle gems were set aside. The rest were shared equally among 2 Sky Patrol. How many sparkle gems did each get? = 31 (E) · Barnaby collected 23 wind crackers in the morning and 72 wind crackers in the afternoon, then split them equally among 5 Sky Patrol. How many wind crackers did each get? = 19 (S) · Barnaby earned 8 sparkle gems in each of 5 rounds, plus 6 bonus sparkle gems. Then 7 sparkle gems were lost. How many sparkle gems are left? = 39 (N) · There were 91 wind crackers in all. 3 wind crackers were set aside. The rest were shared equally among 4 Sky Patrol. How many wind crackers did each get? = 22 (O) · Barnaby collected 35 sky maps in the morning and 13 sky maps in the afternoon, then split them equally among 4 Sky Patrol. How many sky maps did each get? = 12 (D) · There were 81 sky maps in all. 3 Sky Patrol used 14 sky maps each. The other 3 Sky Patrol shared the rest equally. How many sky maps did each of the other Sky Patrol get? = 13 (U)

Clue 4 (Fractions of a number): "GREEN GOGGLE LENSES WERE LEFT BEHIND"

$\frac{2}{8}$ of 76 = 19 (G) · $\frac{1}{5}$ of 105 = 21 (B) · $\frac{4}{5}$ of 20 = 16 (R) · $\frac{4}{8}$ of 22 = 11 (T) · $\frac{6}{10}$ of 5 = 3 (W) · $\frac{3}{6}$ of 8 = 4 (D) · $\frac{3}{6}$ of 28 = 14 (E) · $\frac{2}{10}$ of 120 = 24 (S) · $\frac{5}{10}$ of 64 = 32 (F) · $\frac{2}{4}$ of 56 = 28 (N) · $\frac{1}{10}$ of 200 = 20 (H) · $\frac{7}{10}$ of 50 = 35 (O) · $\frac{1}{4}$ of 52 = 13 (L) · $\frac{1}{5}$ of 10 = 2 (I)

Clue 5 (Fractions of a number): surviving statement is box 5 → Dexter Drift

$\frac{3}{6}$ of 8 = 4 · $\frac{1}{10}$ of 20 = 2 · $\frac{4}{10}$ of 30 = 12 · $\frac{1}{2}$ of 16 = 8 · $\frac{5}{10}$ of 22 = 11 · $\frac{1}{2}$ of 20 = 10 · $\frac{1}{2}$ of 14 = 7 · $\frac{3}{4}$ of 12 = 9 · $\frac{1}{6}$ of 18 = 3 · $\frac{3}{6}$ of 2 = 1 · $\frac{4}{8}$ of 12 = 6