The Great Rubber Cucumber Mystery

Grade 5 math · Multiplication, Multi-step word problems, Bar models, Fractions of a number, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone swapped the Head Clown Scientist's prized collection of rare rubber chickens with squeaky rubber cucumbers! Inspect the lab, solve the puzzle clues, and catch the giggling culprit before the big comedy show.

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 Prankster is _____

Possible suspects

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

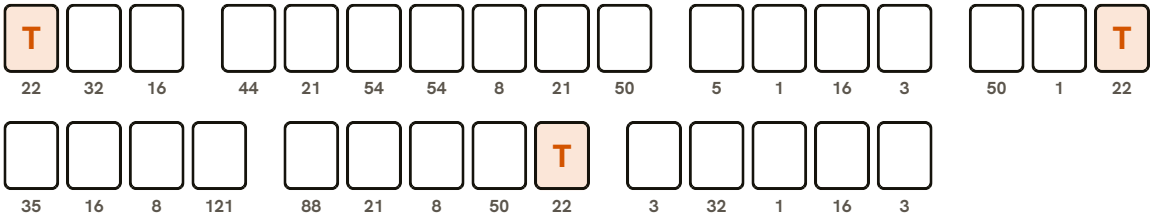
NAME	GAG GADGET	SECRET DISGUISE	SHOE TYPE	WIG STYLE	UNEXPECTED FOIL
Baron Von Chuckle	Squirting Flower	Mustache Glasses	Tap Shoes	Bright Orange Mullet	Soap Bubble
Trixie Tickle	Cream Pie Cannon	Giant Shoes	Tap Shoes	Bright Orange Mullet	Soap Bubble
Doctor Droll	Honking Nose	Chicken Suit	Squeaky Sneakers	Curly Purple Hair	Squirting Banana
Kooky Kevin	Cream Pie Cannon	Sparkly TuTu	Squeaky Sneakers	Neon Afro	Tickle Feather
Captain Crackup	Whoopee Cushion	Mustache Glasses	Tap Shoes	Bright Orange Mullet	Soap Bubble
Snicker Sam	Whoopee Cushion	Polka Dot Cape	Tap Shoes	Bright Orange Mullet	Soap Bubble
Bubble Bob	Whoopee Cushion	Sparkly TuTu	Tap Shoes	Curly Purple Hair	Soap Bubble
Zany Zack	Squirting Flower	Sparkly TuTu	Tap Shoes	Bright Orange Mullet	Squirting Banana
Loopy Lucy	Whoopee Cushion	Mustache Glasses	Squeaky Sneakers	Bright Orange Mullet	Soap Bubble
Jolly Jerry	Joy Buzzer	Giant Shoes	Squeaky Sneakers	Neon Afro	Tickle Feather
Barnaby Boffo	Whoopee Cushion	Polka Dot Cape	Squeaky Sneakers	Curly Purple Hair	Tickle Feather
Professor Prank	Cream Pie Cannon	Chicken Suit	Tap Shoes	Bright Orange Mullet	Squirting Banana
Wobble Wayne	Squirting Flower	Giant Shoes	Squeaky Sneakers	Neon Afro	Squirting Banana
Buzzy Beaver	Cream Pie Cannon	Chicken Suit	Tap Shoes	Bright Orange Mullet	Soap Bubble
Gag Gordon	Squirting Flower	Chicken Suit	Squeaky Sneakers	Neon Afro	Soap Bubble
Giggles McGee	Joy Buzzer	Sparkly TuTu	Squeaky Sneakers	Bright Orange Mullet	Soap Bubble
Penny Polka	Cream Pie Cannon	Chicken Suit	Tap Shoes	Bright Orange Mullet	Tickle Feather
Chuckle Charlie	Whoopee Cushion	Sparkly TuTu	Tap Shoes	Bright Orange Mullet	Tickle Feather
Bouncing Betty	Cream Pie Cannon	Giant Shoes	Tap Shoes	Bright Orange Mullet	Squirting Banana
Hilarity Hannah	Squirting Flower	Mustache Glasses	Tap Shoes	Bright Orange Mullet	Tickle Feather
Sir Silly	Squirting Flower	Giant Shoes	Tap Shoes	Neon Afro	Squirting Banana

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CLUE 1 Multiplication facts (1-12)

To calculate the total rubber ducks found at the scene, multiply the rows of lab shelves by the ducks per row.

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



11 × 2 = ☐ → T

5 × 7 = ☐ → W

11 × 4 = ☐ → V

1 × 3 = ☐ → S

11 × 8 = ☐ → G

7 × 3 = ☐ → I

10 × 5 = ☐ → N

11 × 11 = ☐ → R

2 × 4 = ☐ → A

4 × 4 = ☐ → E

9 × 6 = ☐ → L

4 × 8 = ☐ → H

1 × 5 = ☐ → D

1 × 1 = ☐ → O

Scratch space:

CLUE 2 Multi-step word problems

> The detective needs to add the confetti piles found in the hallway, subtract the swept-up piles, and multiply by the remaining lab rooms.

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

A witness saw the villain was

T								
39	77	60	73	56	21	44	73	

.

Detective Giggles earned 4 squirting flowers in each of 3 rounds, plus 32 bonus squirting flowers. Then 5 squirting flowers were lost. How many squirting flowers are left?

Answer: ☐ → **T**

Detective Giggles collected 213 squirting flowers in the morning and 147 squirting flowers in the afternoon, then split them equally among 6 The Prank Patrol. How many squirting flowers did each get?

Answer: ☐ → **P**

There were 246 rubber cucumbers in all. 1 The Prank Patrol used 22 rubber cucumbers each. The other 4 The Prank Patrol shared the rest equally. How many rubber cucumbers did each of the other The Prank Patrol get?

Answer: ☐ → **H**

Detective Giggles collected 100 squirting flowers in the morning and 5 squirting flowers in the afternoon, then split them equally among 5 The Prank Patrol. How many squirting flowers did each get?

Answer: ☐ → **O**

Detective Giggles collected 146 squirting flowers in the morning and 74 squirting flowers in the afternoon, then split them equally among 5 The Prank Patrol. How many squirting flowers did each get?

Answer: ☐ → **E**

Detective Giggles collected 41 squirting flowers in the morning and 324 squirting flowers in the afternoon, then split them equally among 5 The Prank Patrol. How many squirting flowers did each get?

Answer: ☐ → **S**

Detective Giggles earned 2 squirting flowers in each of 5 rounds, plus 71 bonus squirting flowers. Then 4 squirting flowers were lost. How many squirting flowers are left?

Answer: ☐ → **A**

Scratch space:

CLUE 3 Bar model word problems

A bar model taped to the lab wall compares the lengths of several giant banana peels to reveal a vital clue.

Draw a bar model to solve each word problem, then write its letter in the boxes to fill in the missing word.

Someone scared the villain off with

S									E
58	66	33	38	68	24	68	68	88	

.

Detective Giggles used 1/2 of the squirting flowers on the first day. The other 29 squirting flowers were used the next day. How many squirting flowers were there in all?

draw a bar model

Answer: ☐ → S

There were 75 pie trays in all. 7 pie trays were used. How many pie trays are left?

draw a bar model

Answer: ☐ → B

The red team has 73 rubber cucumbers and the blue team has 35 rubber cucumbers. How many more rubber cucumbers does the red team have?

draw a bar model

Answer: ☐ → P

Detective Giggles has 4 times as many pie trays as a teammate. The teammate has 6 pie trays. How many pie trays does Detective Giggles have?

draw a bar model

Answer: ☐ → U

There were 104 pie trays in all. 38 pie trays were used. How many pie trays are left?

draw a bar model

Answer: ☐ → O

One group collected 25 pie trays and another group collected 8 pie trays. How many pie trays in all?

draw a bar model

Answer: ☐ → A

Detective Giggles shares 176 fake mustaches equally among 2 teams. How many fake mustaches does each team get?

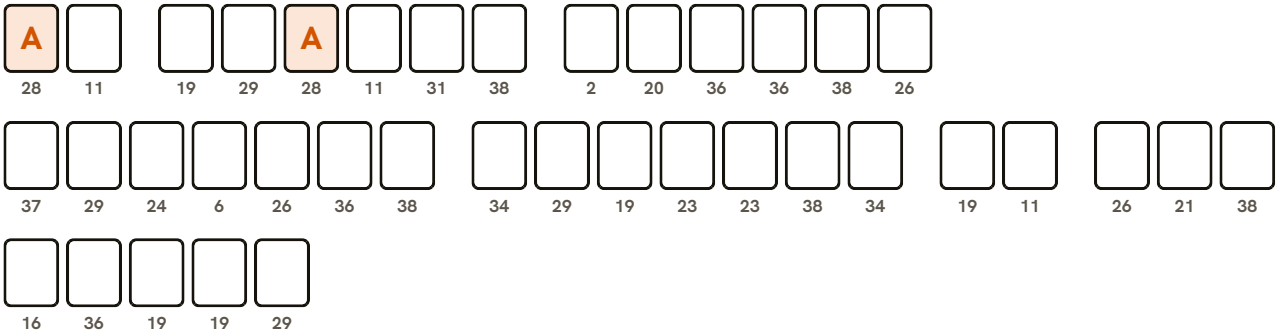
draw a bar model

Answer: ☐ → L

CLUE 4 Fractions of a number

The clown assistant realized that a specific fraction of the missing cream pies reveals part of the secret code.

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



2/6 of 84 = ☐ → A

4/10 of 95 = ☐ → E

1/2 of 38 = ☐ → O

1/2 of 58 = ☐ → R

3/6 of 68 = ☐ → D

1/4 of 24 = ☐ → S

5/10 of 48 = ☐ → I

1/4 of 44 = ☐ → N

4/10 of 65 = ☐ → T

3/6 of 42 = ☐ → H

1/4 of 144 = ☐ → L

2/6 of 93 = ☐ → G

1/2 of 74 = ☐ → B

1/4 of 8 = ☐ → M

3/6 of 46 = ☐ → P

1/10 of 160 = ☐ → F

4/6 of 30 = ☐ → U

Scratch space:

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

> Dividing the total squeaky cucumbers equally into specimen jars reveals the final hidden 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:

24 ÷ 3 = ☐	84 ÷ 12 = ☐	48 ÷ 4 = ☐	48 ÷ 12 = ☐	72 ÷ 12 = ☐
15 ÷ 5 = ☐	6 ÷ 6 = ☐	22 ÷ 2 = ☐	63 ÷ 7 = ☐	20 ÷ 10 = ☐
100 ÷ 10 = ☐				

Step 2 - cross out the sentence with each answer:

1. The villain launched a massive cream pie cannon, then spun around in a sparkly tutu.
2. The villain blasted squirting flowers around, then danced around in a chicken suit.
3. The villain zapped everyone with a joy buzzer, then danced around in a chicken suit.
4. The villain launched a massive cream pie cannon, then swished near in a polka dot cape.
5. The villain placed a loud whoopee cushion, then sneaked past in mustache glasses.
6. The villain zapped everyone with a joy buzzer, then swished near in a polka dot cape.
7. The villain placed a loud whoopee cushion, then swished near in a polka dot cape.
8. The villain blasted squirting flowers around, then sneaked past in mustache glasses.
9. The villain zapped everyone with a joy buzzer, then stumbled around in giant shoes.
10. The villain honked a noisy honking nose, then spun around in a sparkly tutu.
11. The villain blasted squirting flowers around, then stumbled around in giant shoes.
12. The villain launched a massive cream pie cannon, then danced around in a chicken suit.

TEACHER / PARENT

Answer Key

The Great Rubber Cucumber Mystery

Culprit: Captain Crackup

Whoopee Cushion · Mustache Glasses · Tap Shoes · Bright Orange Mullet · Soap Bubble

Trail: Start 21 → Clue 1 16 → Clue 2 10 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DOES NOT WEAR GIANT SHOES"

11 × 2 = 22 (T) · 5 × 7 = 35 (W) · 11 × 4 = 44 (V) · 1 × 3 = 3 (S) · 11 × 8 = 88 (G) · 7 × 3 = 21 (I) · 10 × 5 = 50 (N) · 11 × 11 = 121 (R) · 2 × 4 = 8 (A) · 4 × 4 = 16 (E) · 9 × 6 = 54 (L) · 4 × 8 = 32 (H) · 1 × 5 = 5 (D) · 1 × 1 = 1 (O)

Clue 2 (Multi-step word problems): "TAP SHOES"

Detective Giggles earned 4 squirting flowers in each of 3 rounds, plus 32 bonus squirting flowers. Then 5 squirting flowers were lost. How many squirting flowers are left? = 39 (T) · Detective Giggles collected 213 squirting flowers in the morning and 147 squirting flowers in the afternoon, then split them equally among 6 The Prank Patrol. How many squirting flowers did each get? = 60 (P) · There were 246 rubber cucumbers in all. 1 The Prank Patrol used 22 rubber cucumbers each. The other 4 The Prank Patrol shared the rest equally. How many rubber cucumbers did each of the other The Prank Patrol get? = 56 (H) · Detective Giggles collected 100 squirting flowers in the morning and 5 squirting flowers in the afternoon, then split them equally among 5 The Prank Patrol. How many squirting flowers did each get? = 21 (O) · Detective Giggles collected 146 squirting flowers in the morning and 74 squirting flowers in the afternoon, then split them equally among 5 The Prank Patrol. How many squirting flowers did each get? = 44 (E) · Detective Giggles collected 41 squirting flowers in the morning and 324 squirting flowers in the afternoon, then split them equally among 5 The Prank Patrol. How many squirting flowers did each get? = 73 (S) · Detective Giggles earned 2 squirting flowers in each of 5 rounds, plus 71 bonus squirting flowers. Then 4 squirting flowers were lost. How many squirting flowers are left? = 77 (A)

Clue 3 (Bar model word problems): "SOAP BUBBLE"

Detective Giggles used 1/2 of the squirting flowers on the first day. The other 29 squirting flowers were used the next day. How many squirting flowers were there in all? = 58 (S) · There were 75 pie trays in all. 7 pie trays were used. How many pie trays are left? = 68 (B) · The red team has 73 rubber cucumbers and the blue team has 35 rubber cucumbers. How many more rubber cucumbers does the red team have? = 38 (P) · Detective Giggles has 4 times as many pie trays as a teammate. The teammate has 6 pie trays. How many pie trays does Detective Giggles have? = 24 (U) · There were 104 pie trays in all. 38 pie trays were used. How many pie trays are left? = 66 (O) · One group collected 25 pie trays and another group collected 8 pie trays. How many pie trays in all? = 33 (A) · Detective Giggles shares 176 fake mustaches equally among 2 teams. How many fake mustaches does each team get? = 88 (L)

Clue 4 (Fractions of a number): "AN ORANGE MULLET BRISTLE DROPPED ON THE FLOOR"

2/6 of 84 = 28 (A) · 4/10 of 95 = 38 (E) · 1/2 of 38 = 19 (O) · 1/2 of 58 = 29 (R) · 3/6 of 68 = 34 (D) · 1/4 of 24 = 6 (S) · 5/10 of 48 = 24 (I) · 1/4 of 44 = 11 (N) · 4/10 of 65 = 26 (T) · 3/6 of 42 = 21 (H) · 1/4 of 144 = 36 (L) · 2/6 of 93 = 31 (G) · 1/2 of 74 = 37 (B) · 1/4 of 8 = 2 (M) · 3/6 of 46 = 23 (P) · 1/10 of 160 = 16 (F) · 4/6 of 30 = 20 (U)

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

24 ÷ 3 = 8 · 84 ÷ 12 = 7 · 48 ÷ 4 = 12 · 48 ÷ 12 = 4 · 72 ÷ 12 = 6 · 15 ÷ 5 = 3 · 6 ÷ 6 = 1 · 22 ÷ 2 = 11 · 63 ÷ 7 = 9 · 20 ÷ 10 = 2 · 100 ÷ 10 = 10