The Great Malibu Fashion Mystery

Grade 6 math · Addition, Subtraction, Multiplication, Percentages, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

Someone snuck backstage right before the annual Malibu Fashion Gala and hid the golden tiara! The Glam Squad needs your help analyzing clues to find out who did it.

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 runway rascal is _____

Possible suspects

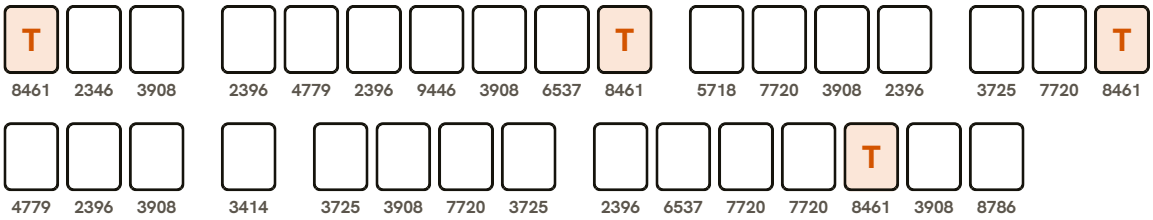
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	CAREER SKILL	SIGNATURE GADGET	DOMINANT HAND	HAIR STYLE	FOILED BY
Harper Vance	Pop Superstar	Glitz Tablet	Right Handed	Jet Black	Bright Flashlight
Renee Chen	Ocean Rescuer	Sparkle Jet	Left Handed	Pastel Pink	Sticky Glitter
Summer Gordon	Vet Specialist	Diamond Mic	Left Handed	Golden Blonde	Bright Flashlight
Blaine Gordon	Stunt Pilot	Diamond Mic	Left Handed	Pastel Pink	Bright Flashlight
Nikki Watson	Vet Specialist	Diamond Mic	Left Handed	Jet Black	Sticky Glitter
Grace Mitchell	Runway Designer	Glitz Tablet	Left Handed	Pastel Pink	Loud Whistle
Teresa Chavez	Pop Superstar	Sparkle Jet	Right Handed	Golden Blonde	Loud Whistle
Midge Hadley	Ocean Rescuer	Glitz Tablet	Left Handed	Pastel Pink	Loud Whistle
Steven Taylor	Pop Superstar	Hologram Cam	Right Handed	Golden Blonde	Bright Flashlight
Todd Roberts	Stunt Pilot	Sparkle Jet	Right Handed	Pastel Pink	Bright Flashlight
Ryan Smith	Vet Specialist	Diamond Mic	Left Handed	Pastel Pink	Bright Flashlight
Teresa Rivera	Runway Designer	Diamond Mic	Left Handed	Pastel Pink	Bright Flashlight
Stacie Roberts	Stunt Pilot	Sparkle Jet	Right Handed	Golden Blonde	Loud Whistle
Raquelle Smith	Pop Superstar	Neon Scooter	Left Handed	Pastel Pink	Bright Flashlight
Ken Carson	Vet Specialist	Diamond Mic	Right Handed	Pastel Pink	Bright Flashlight
Brooklyn Roberts	Runway Designer	Neon Scooter	Right Handed	Pastel Pink	Loud Whistle
Christie Cole	Pop Superstar	Sparkle Jet	Left Handed	Pastel Pink	Bright Flashlight
Tracy Stewart	Vet Specialist	Neon Scooter	Left Handed	Pastel Pink	Bright Flashlight
Skipper Roberts	Pop Superstar	Diamond Mic	Left Handed	Jet Black	Bright Flashlight
Barbie Roberts	Runway Designer	Diamond Mic	Right Handed	Pastel Pink	Bright Flashlight
Chelsea Roberts	Runway Designer	Sparkle Jet	Right Handed	Golden Blonde	Bright Flashlight

CLUE 1 Addition

> To find where the mystery clue is hidden, count up all the fashion sketches collected across the three design desks.

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



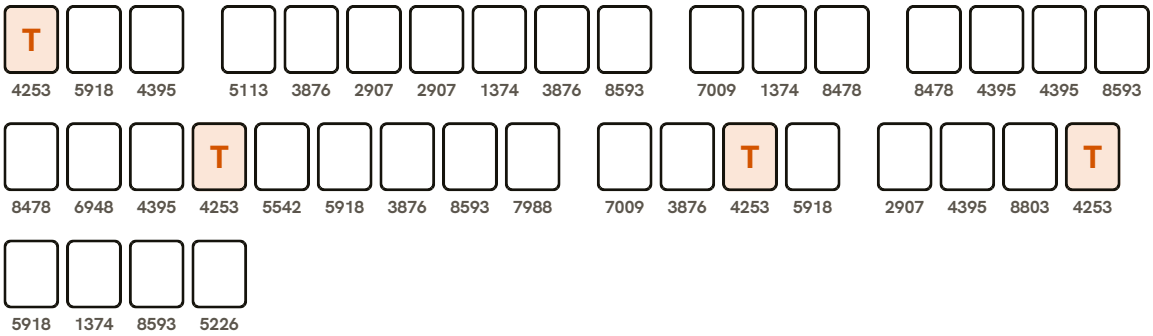
3392 + 5069 = ☐ → T	1678 + 2230 = ☐ → E	3399 + 3138 = ☐ → C
3988 + 5458 = ☐ → P	806 + 1540 = ☐ → H	1348 + 1048 = ☐ → S
3750 + 1968 = ☐ → D	2156 + 1569 = ☐ → N	4129 + 3591 = ☐ → O
5795 + 2991 = ☐ → R	2613 + 2166 = ☐ → U	1862 + 1552 = ☐ → A

Scratch space:

CLUE 2 Subtraction

> Compare the number of satin bolts in the storeroom to the number used on the runway to find the exact length missing.

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



8137 - 3884 = ☐ → T

11327 - 2849 = ☐ → S

9501 - 1513 = ☐ → G

11487 - 2894 = ☐ → N

7954 - 1006 = ☐ → K

8043 - 3648 = ☐ → E

3729 - 822 = ☐ → L

9156 - 3930 = ☐ → D

8237 - 4361 = ☐ → I

9785 - 4243 = ☐ → C

7473 - 464 = ☐ → W

7365 - 1447 = ☐ → H

6229 - 4855 = ☐ → A

10103 - 1300 = ☐ → F

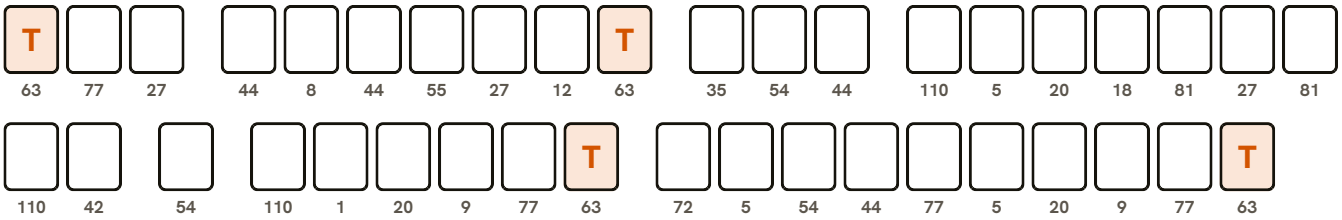
7507 - 2394 = ☐ → V

Scratch space:

CLUE 3 Multiplication facts (1-12)

> The studio cameras are setup in equal rows along the stage. Calculate the total number of lens feeds to decode the signal.

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



9 × 7 = ☐ → T

4 × 11 = ☐ → S

9 × 3 = ☐ → E

9 × 6 = ☐ → A

5 × 1 = ☐ → L

5 × 4 = ☐ → I

5 × 7 = ☐ → W

11 × 10 = ☐ → B

1 × 1 = ☐ → R

5 × 11 = ☐ → P

2 × 4 = ☐ → U

6 × 12 = ☐ → F

9 × 9 = ☐ → D

7 × 6 = ☐ → Y

1 × 12 = ☐ → C

3 × 6 = ☐ → N

7 × 11 = ☐ → H

1 × 9 = ☐ → G

Scratch space:

CLUE 4 Percentages

Check the security monitor percentage readout to see how much power remains in the studio backup generator.

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

P						P												
3	28	6	35	22	39	3	14	15	12	6	35	11	28	15	5	6		

40	22	11	22	39	22	32	35	28	35	6	36	22	15	22		

25% of 12 = ☐ → P

50% of 80 = ☐ → W

50% of 22 = ☐ → R

20% of 175 = ☐ → T

5% of 560 = ☐ → A

10% of 60 = ☐ → S

25% of 56 = ☐ → I

50% of 10 = ☐ → D

10% of 390 = ☐ → L

20% of 60 = ☐ → K

50% of 72 = ☐ → C

5% of 300 = ☐ → N

40% of 55 = ☐ → E

50% of 64 = ☐ → F

Scratch space:

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

Split the total number of backstage gift bags equally among the dressing rooms to clear the hallway.

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:

12 ÷ 6 = ☐ | 24 ÷ 2 = ☐ | 18 ÷ 2 = ☐ | 64 ÷ 8 = ☐ | 21 ÷ 3 = ☐

27 ÷ 9 = ☐ | 9 ÷ 9 = ☐ | 11 ÷ 1 = ☐ | 30 ÷ 3 = ☐ | 16 ÷ 4 = ☐

66 ÷ 11 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain designed high fashion gowns, then filming with a hologram cam.
2. The villain flew the stunt plane, then singing into a diamond mic.
3. The villain patrolled the ocean shoreline, then planning on a glitz tablet.
4. The villain patrolled the ocean shoreline, then riding a neon scooter.
5. The villain performed on the main stage, then piloting a sparkle jet.
6. The villain performed on the main stage, then planning on a glitz tablet.
7. The villain treated the show animals, then piloting a sparkle jet.
8. The villain designed high fashion gowns, then planning on a glitz tablet.
9. The villain designed high fashion gowns, then singing into a diamond mic.
10. The villain treated the show animals, then riding a neon scooter.
11. The villain performed on the main stage, then singing into a diamond mic.
12. The villain treated the show animals, then singing into a diamond mic.

TEACHER / PARENT

Answer Key

The Great Malibu Fashion Mystery

Culprit: Christie Cole

Pop Superstar · Sparkle Jet · Left Handed · Pastel Pink · Bright Flashlight

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SUSPECT DOES NOT USE A NEON SCOOTER"

3392 + 5069 = 8461 (T) · 1678 + 2230 = 3908 (E) · 3399 + 3138 = 6537 (C) · 3988 + 5458 = 9446 (P) · 806 + 1540 = 2346 (H) · 1348 + 1048 = 2396 (S) · 3750 + 1968 = 5718 (D) · 2156 + 1569 = 3725 (N) · 4129 + 3591 = 7720 (O) · 5795 + 2991 = 8786 (R) · 2613 + 2166 = 4779 (U) · 1862 + 1552 = 3414 (A)

Clue 2 (Subtraction): "THE VILLAIN WAS SEEN SKETCHING WITH LEFT HAND"

8137 - 3884 = 4253 (T) · 11327 - 2849 = 8478 (S) · 9501 - 1513 = 7988 (G) · 11487 - 2894 = 8593 (N) · 7954 - 1006 = 6948 (K) · 8043 - 3648 = 4395 (E) · 3729 - 822 = 2907 (L) · 9156 - 3930 = 5226 (D) · 8237 - 4361 = 3876 (I) · 9785 - 4243 = 5542 (C) · 7473 - 464 = 7009 (W) · 7365 - 1447 = 5918 (H) · 6229 - 4855 = 1374 (A) · 10103 - 1300 = 8803 (F) · 7507 - 2394 = 5113 (V)

Clue 3 (Multiplication facts (1-12)): "THE SUSPECT WAS BLINDED BY A BRIGHT FLASHLIGHT"

9 × 7 = 63 (T) · 4 × 11 = 44 (S) · 9 × 3 = 27 (E) · 9 × 6 = 54 (A) · 5 × 1 = 5 (L) · 5 × 4 = 20 (I) · 5 × 7 = 35 (W) · 11 × 10 = 110 (B) · 1 × 1 = 1 (R) · 5 × 11 = 55 (P) · 2 × 4 = 8 (U) · 6 × 12 = 72 (F) · 9 × 9 = 81 (D) · 7 × 6 = 42 (Y) · 1 × 12 = 12 (C) · 3 × 6 = 18 (N) · 7 × 11 = 77 (H) · 1 × 9 = 9 (G)

Clue 4 (Percentages): "PASTEL PINK STRANDS WERE LEFT AT SCENE"

25% of 12 = 3 (P) · 50% of 80 = 40 (W) · 50% of 22 = 11 (R) · 20% of 175 = 35 (T) · 5% of 560 = 28 (A) · 10% of 60 = 6 (S) · 25% of 56 = 14 (I) · 50% of 10 = 5 (D) · 10% of 390 = 39 (L) · 20% of 60 = 12 (K) · 50% of 72 = 36 (C) · 5% of 300 = 15 (N) · 40% of 55 = 22 (E) · 50% of 64 = 32 (F)

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

12 ÷ 6 = 2 · 24 ÷ 2 = 12 · 18 ÷ 2 = 9 · 64 ÷ 8 = 8 · 21 ÷ 3 = 7 · 27 ÷ 9 = 3 · 9 ÷ 9 = 1 · 11 ÷ 1 = 11 · 30 ÷ 3 = 10 · 16 ÷ 4 = 4 · 66 ÷ 11 = 6