The Route 67 Grand Prix Sabotage

Grade 5 math · Multiplication, Rounding, Fractions of a number, Order of operations, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

During the famous Route 67 Vintage Grand Prix, someone tampered with the leading car right before the final lap. Chief Marshal Vance needs your detective skills to decode the track telemetry, solve the pit crew math, and catch the saboteur before the finish line!

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 racing saboteur is _____

Possible suspects

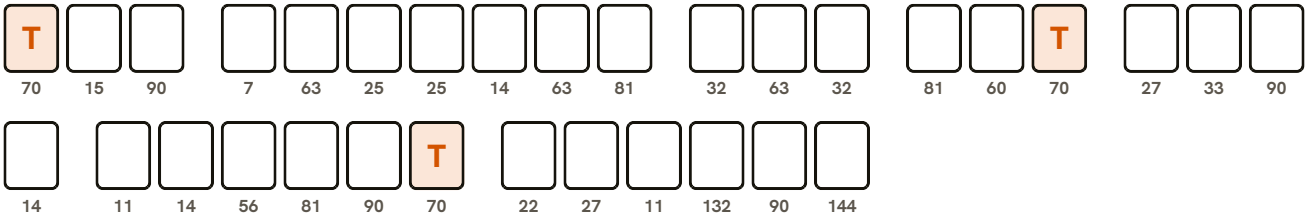
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	ENGINE MOD	GADGET TOOL	DRIVING HABIT	HELMET STYLE	TRACK HAZARD
Sammy Rodriguez	Super Exhaust	Magnet Bumper	CHECKS RIGHT MIRROR	FLAME GOGGLES	SLIPPERY OIL PUDDLE
Elena Rostova	High Drift Axle	EMP Emitter	CHECKS RIGHT MIRROR	CHECKERED CAP	LOOSE GRAVEL PATCH
Marcus Thorne	Twin Carburetor	Smoke Screen Cannon	CHECKS LEFT MIRROR	FLAME GOGGLES	SLIPPERY OIL PUDDLE
Nora Allen	Twin Carburetor	Grappling Hook	CHECKS LEFT MIRROR	CHECKERED CAP	LOOSE GRAVEL PATCH
Oscar Vance	High Drift Axle	Oil Slick Sprayer	CHECKS RIGHT MIRROR	CHECKERED CAP	LOOSE GRAVEL PATCH
Chloe Dupont	Super Exhaust	Smoke Screen Cannon	CHECKS RIGHT MIRROR	FLAME GOGGLES	STICKY TAR STRIP
Jasper Cole	Twin Carburetor	Oil Slick Sprayer	CHECKS RIGHT MIRROR	FLAME GOGGLES	LOOSE GRAVEL PATCH
Felix Gomez	Super Exhaust	Grappling Hook	CHECKS RIGHT MIRROR	CHROME HELMET	STICKY TAR STRIP
Iris West	High Drift Axle	Magnet Bumper	CHECKS RIGHT MIRROR	CHROME HELMET	SLIPPERY OIL PUDDLE
Rex Harrison	Twin Carburetor	Oil Slick Sprayer	CHECKS LEFT MIRROR	CHECKERED CAP	SLIPPERY OIL PUDDLE
Cora Vance	Nitrous Boost	Smoke Screen Cannon	CHECKS RIGHT MIRROR	CHECKERED CAP	SLIPPERY OIL PUDDLE
Lucas Scott	Nitrous Boost	Grappling Hook	CHECKS RIGHT MIRROR	CHECKERED CAP	LOOSE GRAVEL PATCH
Rita Chang	Turbo Charger	Smoke Screen Cannon	CHECKS RIGHT MIRROR	FLAME GOGGLES	STICKY TAR STRIP
Toby Miller	Super Exhaust	Magnet Bumper	CHECKS RIGHT MIRROR	CHECKERED CAP	LOOSE GRAVEL PATCH
Daphne Blake	Twin Carburetor	Grappling Hook	CHECKS LEFT MIRROR	CHECKERED CAP	SLIPPERY OIL PUDDLE
Kira Nerys	Twin Carburetor	EMP Emitter	CHECKS RIGHT MIRROR	FLAME GOGGLES	STICKY TAR STRIP
Victor Vance	High Drift Axle	Grappling Hook	CHECKS RIGHT MIRROR	FLAME GOGGLES	STICKY TAR STRIP
Nina Patel	Super Exhaust	Smoke Screen Cannon	CHECKS RIGHT MIRROR	CHECKERED CAP	LOOSE GRAVEL PATCH
Maya Lin	Twin Carburetor	Smoke Screen Cannon	CHECKS RIGHT MIRROR	FLAME GOGGLES	LOOSE GRAVEL PATCH
Bruno Diaz	Turbo Charger	Magnet Bumper	CHECKS LEFT MIRROR	FLAME GOGGLES	STICKY TAR STRIP
Zane Brooks	Twin Carburetor	Grappling Hook	CHECKS RIGHT MIRROR	CHROME HELMET	LOOSE GRAVEL PATCH

CLUE 1 Multiplication facts (1-12)

To decrypt the first scrambled pit log, you tally equal rows of racing spare parts stored in the pit stop bays.

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



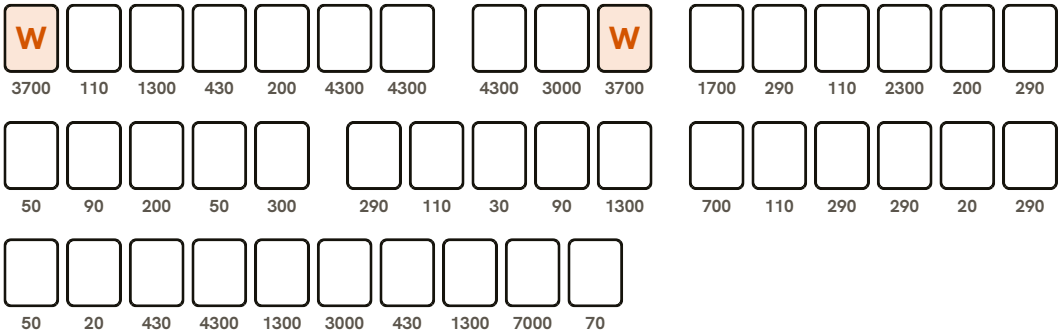
10 × 7 = ☐ → T	3 × 5 = ☐ → H	7 × 1 = ☐ → V
10 × 9 = ☐ → E	11 × 3 = ☐ → S	7 × 8 = ☐ → G
1 × 11 = ☐ → M	11 × 2 = ☐ → B	11 × 12 = ☐ → P
5 × 5 = ☐ → L	7 × 2 = ☐ → A	3 × 9 = ☐ → U
4 × 8 = ☐ → D		
12 × 12 = ☐ → R	9 × 9 = ☐ → N	12 × 5 = ☐ → O
7 × 9 = ☐ → I		

Scratch space:

CLUE 2 Rounding

The digital speedometer dashboard rounds all velocities to the nearest ten to simplify rapid track calculations.

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



Round 3,698 to the nearest hundred ☐ → W

Round 66 to the nearest ten ☐ → Y

Round 169 to the nearest hundred ☐ → E

Round 7,247 to the nearest thousand ☐ → L

Round 655 to the nearest hundred ☐ → M

Round 1,685 to the nearest hundred ☐ → D

Round 3,135 to the nearest thousand ☐ → A

Round 268 to the nearest hundred ☐ → K

Round 17 to the nearest ten ☐ → O

Round 86 to the nearest ten ☐ → H

Round 1,279 to the nearest hundred ☐ → T

Round 108 to the nearest ten ☐ → I

Round 290 to the nearest ten ☐ → R

Round 4,342 to the nearest hundred ☐ → S

Round 49 to the nearest ten ☐ → C

Round 2,335 to the nearest hundred ☐ → V

Round 428 to the nearest ten ☐ → N

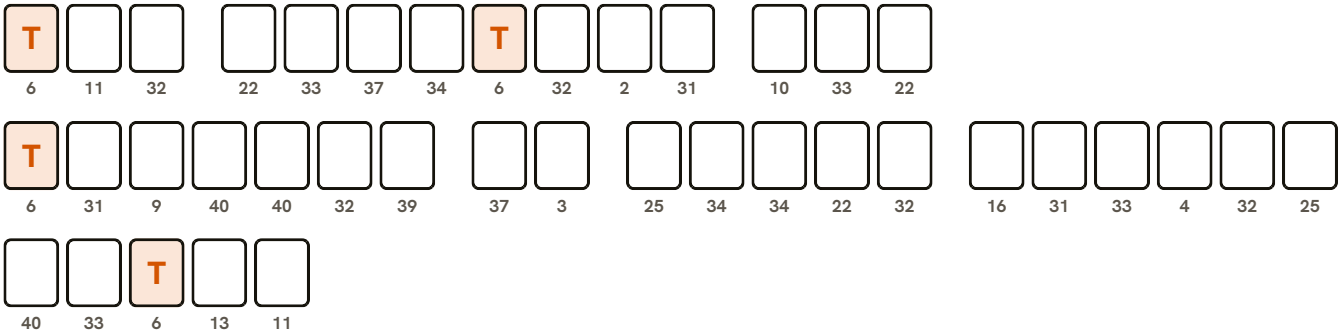
Round 29 to the nearest ten ☐ → G

Scratch space:

CLUE 3 Fractions of a number

> Analyzing the desert track telemetry requires calculating fractional portions of the total laps completed.

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



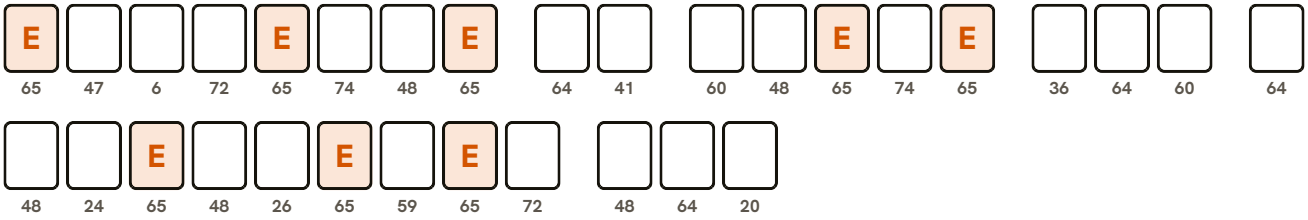
1/2 of 12 = ☐ → T	1/4 of 160 = ☐ → P	1/5 of 165 = ☐ → A
1/3 of 75 = ☐ → L	2/6 of 66 = ☐ → S	1/4 of 136 = ☐ → O
5/10 of 4 = ☐ → U	1/6 of 54 = ☐ → I	1/3 of 48 = ☐ → G
2/4 of 20 = ☐ → W	2/6 of 96 = ☐ → E	3/6 of 6 = ☐ → Y
2/4 of 8 = ☐ → V	4/8 of 26 = ☐ → C	4/8 of 62 = ☐ → R
1/2 of 74 = ☐ → B	1/3 of 117 = ☐ → D	2/4 of 22 = ☐ → H

Scratch space:

CLUE 4 Order of operations

> Unlocking the security keypad at the chief marshal tower demands solving a multi step priority sequence.

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



9 × 10 - 25 = ☐ → E

5 × 7 - 11 = ☐ → H

8 × 11 - 28 = ☐ → S

8 × 9 - 24 = ☐ → C

1 + 5 × 5 = ☐ → K

54 + 5 × 4 = ☐ → N

29 + 6 × 3 = ☐ → V

7 × 9 - 27 = ☐ → W

5 + 4 × 9 = ☐ → T

7 × 10 - 6 = ☐ → A

55 + 2 × 2 = ☐ → R

2 + 2 × 2 = ☐ → I

5 + 3 × 5 = ☐ → P

12 × 7 - 12 = ☐ → D

Scratch space:

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

> To determine equal pit stop splits, you divide the total duration evenly among all pit crew stations.

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:

28 ÷ 7 =	42 ÷ 6 =	25 ÷ 5 =	9 ÷ 9 =	110 ÷ 10 =
18 ÷ 3 =	10 ÷ 5 =	12 ÷ 4 =	40 ÷ 5 =	12 ÷ 1 =
50 ÷ 5 =				

Step 2 - cross out the sentence with each answer:

1. The villain revved the super exhaust, then deployed the oil slick sprayer.
2. The villain engaged the nitrous boost, then triggered the emp emitter.
3. The villain overclocked the turbo charger, then deployed the oil slick sprayer.
4. The villain engaged the nitrous boost, then fired the grappling hook.
5. The villain locked the high drift axle, then triggered the emp emitter.
6. The villain overclocked the turbo charger, then released the smoke screen cannon.
7. The villain revved the super exhaust, then released the smoke screen cannon.
8. The villain tuned the twin carburetor, then triggered the emp emitter.
9. The villain locked the high drift axle, then deployed the oil slick sprayer.
10. The villain locked the high drift axle, then released the smoke screen cannon.
11. The villain engaged the nitrous boost, then activated the magnet bumper.
12. The villain locked the high drift axle, then fired the grappling hook.

TEACHER / PARENT

Answer Key

The Route 67 Grand Prix Sabotage

Culprit: Oscar Vance

High Drift Axle · Oil Slick Sprayer · CHECKS RIGHT MIRROR · CHECKERED CAP · LOOSE GRAVEL PATCH

Trail: Start 21 → Clue 1 17 → Clue 2 13 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Multiplication facts (1-12)): "THE VILLAIN DID NOT USE A MAGNET BUMPER"

10 × 7 = 70 (T) · 3 × 5 = 15 (H) · 7 × 1 = 7 (V) · 10 × 9 = 90 (E) · 11 × 3 = 33 (S) · 7 × 8 = 56 (G) · 1 × 11 = 11 (M) · 11 × 2 = 22 (B) · 11 × 12 = 132 (P) · 5 × 5 = 25 (L) · 7 × 2 = 14 (A) · 3 × 9 = 27 (U) · 4 × 8 = 32 (D) · 12 × 12 = 144 (R) · 9 × 9 = 81 (N) · 12 × 5 = 60 (O) · 7 × 9 = 63 (I)

Clue 2 (Rounding): "WITNESS SAW DRIVER CHECK RIGHT MIRROR CONSTANTLY"

Round 3,698 to the nearest hundred = 3700 (W) · Round 66 to the nearest ten = 70 (Y) · Round 169 to the nearest hundred = 200 (E) · Round 7,247 to the nearest thousand = 7000 (L) · Round 655 to the nearest hundred = 700 (M) · Round 1,685 to the nearest hundred = 1700 (D) · Round 3,135 to the nearest thousand = 3000 (A) · Round 268 to the nearest hundred = 300 (K) · Round 17 to the nearest ten = 20 (O) · Round 86 to the nearest ten = 90 (H) · Round 1,279 to the nearest hundred = 1300 (T) · Round 108 to the nearest ten = 110 (I) · Round 290 to the nearest ten = 290 (R) · Round 4,342 to the nearest hundred = 4300 (S) · Round 49 to the nearest ten = 50 (C) · Round 2,335 to the nearest hundred = 2300 (V) · Round 428 to the nearest ten = 430 (N) · Round 29 to the nearest ten = 30 (G)

Clue 3 (Fractions of a number): "THE SABOTEUR WAS TRIPPED BY LOOSE GRAVEL PATCH"

1/2 of 12 = 6 (T) · 1/4 of 160 = 40 (P) · 1/5 of 165 = 33 (A) · 1/3 of 75 = 25 (L) · 2/6 of 66 = 22 (S) · 1/4 of 136 = 34 (O) · 5/10 of 4 = 2 (U) · 1/6 of 54 = 9 (I) · 1/3 of 48 = 16 (G) · 2/4 of 20 = 10 (W) · 2/6 of 96 = 32 (E) · 3/6 of 6 = 3 (Y) · 2/4 of 8 = 4 (V) · 4/8 of 26 = 13 (C) · 4/8 of 62 = 31 (R) · 1/2 of 74 = 37 (B) · 1/3 of 117 = 39 (D) · 2/4 of 22 = 11 (H)

Clue 4 (Order of operations): "EVIDENCE AT SCENE WAS A CHECKERED CAP"

9 × 10 - 25 = 65 (E) · 5 × 7 - 11 = 24 (H) · 8 × 11 - 28 = 60 (S) · 8 × 9 - 24 = 48 (C) · 1 + 5 × 5 = 26 (K) · 54 + 5 × 4 = 74 (N) · 29 + 6 × 3 = 47 (V) · 7 × 9 - 27 = 36 (W) · 5 + 4 × 9 = 41 (T) · 7 × 10 - 6 = 64 (A) · 55 + 2 × 2 = 59 (R) · 2 + 2 × 2 = 6 (I) · 5 + 3 × 5 = 20 (P) · 12 × 7 - 12 = 72 (D)

Clue 5 (Division facts (1-12)): surviving statement is box 9 → Oscar Vance

28 ÷ 7 = 4 · 42 ÷ 6 = 7 · 25 ÷ 5 = 5 · 9 ÷ 9 = 1 · 110 ÷ 10 = 11 · 18 ÷ 3 = 6 · 10 ÷ 5 = 2 · 12 ÷ 4 = 3 · 40 ÷ 5 = 8 · 12 ÷ 1 = 12 · 50 ÷ 5 = 10