



The Case of the Missing Golden Hubcap

Grade 4 math · Rounding, Addition, Subtraction, Multiplication, Division · Reading level grades 3-4

Detective: _____ Date: _____

Welcome to the Monster Smash Derby! Just before the grand finale, someone drove a giant truck straight into the tool shed and stole the Golden Hubcap trophy! Rex, the Head Mechanic, needs you to track down the sneaky driver who ruined the arena's big night.

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 racer is _____

Possible suspects

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

NAME	SIGNATURE MOVE	TRUCK DECAL	DRIVER VOICE	HELMET DESIGN	TRUCK SQUEAK
Spike Sally	Mud Spray	Shark Teeth	Girl	Flame Helmet	Loose Muffler
Digger Daisy	Donut Drift	Flame Decals	Boy	Flame Helmet	Squeaky Brake
Axle Abby	Tail Whip	Lightning Bolts	Boy	Star Helmet	Squeaky Brake
Wrecker Will	High Jump	Lightning Bolts	Girl	Star Helmet	Rattling Hood
Skid Shelby	Donut Drift	Shark Teeth	Boy	Flame Helmet	Loose Muffler
Piston Pete	Tire Spin	Shark Teeth	Boy	Flame Helmet	Loose Muffler
Nitro Ned	High Jump	Flame Decals	Girl	Flame Helmet	Squeaky Brake
Jolt Johnny	Donut Drift	Lightning Bolts	Girl	Star Helmet	Squeaky Brake
Crusher Cody	Tail Whip	Star Stickers	Girl	Star Helmet	Squeaky Brake
Buster Bumper	High Jump	Skull Badges	Girl	Star Helmet	Rattling Hood
Rumble Ruby	Tail Whip	Shark Teeth	Boy	Striped Helmet	Loose Muffler
Blaze Bobbi	Tire Spin	Flame Decals	Girl	Star Helmet	Squeaky Brake
Gears Garry	Donut Drift	Star Stickers	Boy	Flame Helmet	Loose Muffler
Rocky Rex	Donut Drift	Lightning Bolts	Girl	Flame Helmet	Loose Muffler
Slammin Sam	Mud Spray	Skull Badges	Boy	Star Helmet	Rattling Hood
Speedy Spud	Mud Spray	Shark Teeth	Boy	Flame Helmet	Loose Muffler
Revvig Rita	Mud Spray	Star Stickers	Boy	Flame Helmet	Squeaky Brake
Chassis Chip	Mud Spray	Star Stickers	Girl	Star Helmet	Squeaky Brake
Turbo Tara	Donut Drift	Flame Decals	Boy	Flame Helmet	Loose Muffler
Dash Derby	Mud Spray	Shark Teeth	Boy	Star Helmet	Squeaky Brake
Traction Tom	Tail Whip	Star Stickers	Girl	Flame Helmet	Loose Muffler

CLUE 1

The radar gun caught the rogue truck's speed. The screen only shows rounded tens, but rounding the number helps us guess the driver's decal!

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

2000 4700 280000 140000 470 50 700000 280000 470 140000 500 280000 500000 70000 500 2000 30000 500000 280000

140 1400 70 2800 280000 140000 280000 20000 70 1400 500000

Round 1,629 to the nearest thousand $\rightarrow$ **T**

Round 32,487 to the nearest ten thousand → **U**

Round 1,420 to the nearest hundred → **L**

Round 486,315 to the nearest hundred thousand $\rightarrow$ **S**

Round 506 to the nearest hundred $\rightarrow$

Round 50 to the nearest ten $\rightarrow$

Round 278,685 to the nearest ten thousand $\rightarrow$ **E**

Round 74,993 to the nearest ten thousand → **N**

Round 661,863 to the nearest hundred thousand → **V**

Round 2,817 to the nearest hundred → **M**

Round 139 to the nearest ten $\rightarrow$ **F**

Round 23,242 to the nearest ten thousand → **C**

Round 68 to the nearest ten $\rightarrow$ **A**

Round 469 to the nearest ten $\rightarrow$ **R**

Round 4,659 to the nearest hundred → **H**

Round 141,270 to the nearest ten thousand $\rightarrow$ **D**

Scratch space:

CLUE 2 **Addition**

The pit crew added up the total number of crushed soda cans left behind by the suspect. Adding these scraps gives us the driver's gender!

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

A 5723	4588	8322	9405	8505	A 5723	6000	6000	4107	8322	5516	5516	7243	3785	A 5723	5516	5516	2142	7243
8505	2142	7243	7243	6911														

$3043 + 2680 = \square \rightarrow \boxed{\text{A}}$

$5117 + 4288 = \square \rightarrow \boxed{\text{Y}}$

$3307 + 5198 = \square \rightarrow \boxed{\text{W}}$

$2545 + 1562 = \square \rightarrow \boxed{\text{P}}$

$2633 + 1152 = \square \rightarrow \boxed{\text{D}}$

$4600 + 2311 = \square \rightarrow \boxed{\text{L}}$

$2630 + 3370 = \square \rightarrow \boxed{\text{S}}$

$3517 + 1999 = \square \rightarrow \boxed{\text{T}}$

$2409 + 4834 = \square \rightarrow \boxed{\text{E}}$

$4996 + 3326 = \square \rightarrow \boxed{\text{O}}$

$1102 + 1040 = \square \rightarrow \boxed{\text{H}}$

$2884 + 1704 = \square \rightarrow \boxed{\text{B}}$

Scratch space:

CLUE 3

Subtraction

We checked the spare tire rack. Subtracting the missing wheels from our starting pile tells us which squeak to listen for!

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

T																		
8343	4554	4742	4616	5024	3408	3738	4616	5024	5024	7388	4742	7109	3408	4521	4521	4616	4742	4720

7109	8947	3738	4742	8947	6952	4616	8947	3509	4610

$9954 - 1611 = \square \rightarrow \boxed{\text{T}}$

$7752 - 4243 = \square \rightarrow \boxed{\text{N}}$

$5995 - 1379 = \square \rightarrow \boxed{\text{L}}$

$7839 - 730 = \square \rightarrow \boxed{\text{M}}$

$9038 - 4318 = \square \rightarrow \boxed{\text{R}}$

$9087 - 4345 = \square \rightarrow \boxed{\text{E}}$

$11678 - 4290 = \square \rightarrow \boxed{\text{S}}$

$8479 - 3925 = \square \rightarrow \boxed{\text{H}}$

$6944 - 1920 = \square \rightarrow \boxed{\text{O}}$

$5487 - 2079 = \square \rightarrow \boxed{\text{U}}$

$13366 - 4419 = \square \rightarrow \boxed{\text{A}}$

$8778 - 1826 = \square \rightarrow \boxed{\text{C}}$

$7221 - 2611 = \square \rightarrow \boxed{\text{K}}$

$5786 - 1265 = \square \rightarrow \boxed{\text{F}}$

$8055 - 4317 = \square \rightarrow \boxed{\text{D}}$

Scratch space:

CLUE 4

Multiplication facts (1-12)

We found rows of muddy tire tracks outside the shed. Multiplying the number of rows by the tracks in each row reveals the helmet design!

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

A			A										A					
45	6	40	45	81	11	44	11	40	81	11	16	33	45	50	40	11	6	16
14	20	16	44	11	81	18	21											

$5 \times 9 = \square \rightarrow \boxed{\text{A}}$

$8 \times 5 = \square \rightarrow \boxed{\text{L}}$

$2 \times 7 = \square \rightarrow \boxed{\text{I}}$

$11 \times 3 = \square \rightarrow \boxed{\text{W}}$

$9 \times 9 = \square \rightarrow \boxed{\text{M}}$

$11 \times 1 = \square \rightarrow \boxed{\text{E}}$

$11 \times 4 = \square \rightarrow \boxed{\text{H}}$

$5 \times 10 = \square \rightarrow \boxed{\text{S}}$

$2 \times 8 = \square \rightarrow \boxed{\text{T}}$

$1 \times 6 = \square \rightarrow \boxed{\text{F}}$

$5 \times 4 = \square \rightarrow \boxed{\text{N}}$

$3 \times 7 = \square \rightarrow \boxed{\text{D}}$

$3 \times 6 = \square \rightarrow \boxed{\text{U}}$

Scratch space:

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

The suspect split up their stolen fuel cans among the escape ramps. Dividing the total cans equally points us to the final driver!

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:

$6 \div 6 = \boxed{}$

$5 \div 1 = \boxed{}$

$16 \div 4 = \boxed{}$

$60 \div 10 = \boxed{}$

$24 \div 3 = \boxed{}$

$27 \div 9 = \boxed{}$

$35 \div 5 = \boxed{}$

$6 \div 3 = \boxed{}$

$27 \div 3 = \boxed{}$

$60 \div 5 = \boxed{}$

$99 \div 9 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain drifted a perfect donut drift, then chomped past with painted shark teeth.
2. The villain whacked a fence with a tail whip, then roared off showing scary skull badges.
3. The villain spun a wild tire spin, then blazed away with bright flame decals.
4. The villain drifted a perfect donut drift, then shined brightly with gold star stickers.
5. The villain spun a wild tire spin, then chomped past with painted shark teeth.
6. The villain drifted a perfect donut drift, then blazed away with bright flame decals.
7. The villain shot a giant mud spray, then shined brightly with gold star stickers.
8. The villain shot a giant mud spray, then blazed away with bright flame decals.
9. The villain whacked a fence with a tail whip, then blazed away with bright flame decals.
10. The villain shot a giant mud spray, then chomped past with painted shark teeth.
11. The villain whacked a fence with a tail whip, then chomped past with painted shark teeth.
12. The villain did a massive high jump, then zoomed off with flashing lightning bolts.

Answer Key

The Case of the Missing Golden Hubcap

Culprit: Speedy Spud

Mud Spray · Shark Teeth · Boy · Flame Helmet · Loose Muffler

Trail: Start 21 → Clue 1 17 → Clue 2 9 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE DRIVER DOES NOT USE FLAME DECALS"

Round 1,629 to the nearest thousand = 2000 (T) · Round 32,487 to the nearest ten thousand = 30000 (U) · Round 1,420 to the nearest hundred = 1400 (L) · Round 486,315 to the nearest hundred thousand = 500000 (S) · Round 506 to the nearest hundred = 500 (O) · Round 50 to the nearest ten = 50 (I) · Round 278,685 to the nearest ten thousand = 280000 (E) · Round 74,993 to the nearest ten thousand = 70000 (N) · Round 661,863 to the nearest hundred thousand = 700000 (V) · Round 2,817 to the nearest hundred = 2800 (M) · Round 139 to the nearest ten = 140 (F) · Round 23,242 to the nearest ten thousand = 20000 (C) · Round 68 to the nearest ten = 70 (A) · Round 469 to the nearest ten = 470 (R) · Round 4,659 to the nearest hundred = 4700 (H) · Round 141,270 to the nearest ten thousand = 140000 (D)

Clue 2 (Addition): "A BOY WAS SPOTTED AT THE WHEEL"

$3043 + 2680 = 5723$ (A) · $5117 + 4288 = 9405$ (Y) · $3307 + 5198 = 8505$ (W) · $2545 + 1562 = 4107$ (P) · $2633 + 1152 = 3785$ (D) · $4600 + 2311 = 6911$ (L) · $2630 + 3370 = 6000$ (S) · $3517 + 1999 = 5516$ (T) · $2409 + 4834 = 7243$ (E) · $4996 + 3326 = 8322$ (O) · $1102 + 1040 = 2142$ (H) · $2884 + 1704 = 4588$ (B)

Clue 3 (Subtraction): "THE LOUD LOOSE MUFFLER MADE A CLANK"

$9954 - 1611 = 8343$ (T) · $7752 - 4243 = 3509$ (N) · $5995 - 1379 = 4616$ (L) · $7839 - 730 = 7109$ (M) · $9038 - 4318 = 4720$ (R) · $9087 - 4345 = 4742$ (E) · $11678 - 4290 = 7388$ (S) · $8479 - 3925 = 4554$ (H) · $6944 - 1920 = 5024$ (O) · $5487 - 2079 = 3408$ (U) · $13366 - 4419 = 8947$ (A) · $8778 - 1826 = 6952$ (C) · $7221 - 2611 = 4610$ (K) · $5786 - 1265 = 4521$ (F) · $8055 - 4317 = 3738$ (D)

Clue 4 (Multiplication facts (1-12)): "A FLAME HELMET WAS LEFT IN THE MUD"

$5 \times 9 = 45$ (A) · $8 \times 5 = 40$ (L) · $2 \times 7 = 14$ (I) · $11 \times 3 = 33$ (W) · $9 \times 9 = 81$ (M) · $11 \times 1 = 11$ (E) · $11 \times 4 = 44$ (H) · $5 \times 10 = 50$ (S) · $2 \times 8 = 16$ (T) · $1 \times 6 = 6$ (F) · $5 \times 4 = 20$ (N) · $3 \times 7 = 21$ (D) · $3 \times 6 = 18$ (U)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → Speedy Spud

$6 \div 6 = 1$ · $5 \div 1 = 5$ · $16 \div 4 = 4$ · $60 \div 10 = 6$ · $24 \div 3 = 8$ · $27 \div 9 = 3$ · $35 \div 5 = 7$ · $6 \div 3 = 2$ · $27 \div 3 = 9$ · $60 \div 5 = 12$ · $99 \div 9 = 11$