



The Case of the Missing Golden Pig Trophy

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

Detective: _____ Date: _____

The Swine Basketball Association championship is tonight, but the coveted Golden Pig Trophy has been stolen from the trophy case! A mysterious sneaker snatcher left muddy hoof prints all over the court. Head Coach Snout needs your math skills to crack the case and find the thief before tip-off!

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 sneaker snatcher 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	SUPER GEAR	SHOOTING HOOF	BRISTLE COLOR	DISTRACTION
Yao Muck	Trotter Three Pointer	Sticky Grip Gloves	Right Hooved	Pink Bristles	Fresh Mud Puddle
Nikola Jokitch	Squealing Fast Break	Golden Snout Guard	Right Hooved	Pink Bristles	Crunchy Apple Slices
Giannis Antetogrun	Squealing Fast Break	Sticky Grip Gloves	Left Hooved	Brown Bristles	Fresh Mud Puddle
Magic Porkson	Muddy Crossover	Sticky Grip Gloves	Right Hooved	Brown Bristles	Loud Referee Whistle
LeBron Ham	Swine Slam Dunk	Springy Squeak Shoes	Left Hooved	Pink Bristles	Loud Referee Whistle
Kobe Bacon	Trotter Three Pointer	Sticky Grip Gloves	Left Hooved	Pink Bristles	Fresh Mud Puddle
Shaquille ONugget	Squealing Fast Break	Neon Headband	Left Hooved	Black Bristles	Crunchy Apple Slices
Hakeem Olajupig	Swine Slam Dunk	Sparkly Pig Cape	Left Hooved	Pink Bristles	Crunchy Apple Slices
Stephen Currytail	Muddy Crossover	Neon Headband	Right Hooved	Black Bristles	Fresh Mud Puddle
DeMar DeRooter	Squealing Fast Break	Neon Headband	Right Hooved	Brown Bristles	Fresh Mud Puddle
Penny Hardawaypig	No Look Pork Pass	Sparkly Pig Cape	Right Hooved	Pink Bristles	Fresh Mud Puddle
Bam Adebacoon	Squealing Fast Break	Springy Squeak Shoes	Right Hooved	Pink Bristles	Loud Referee Whistle
Luka Hogcic	Trotter Three Pointer	Golden Snout Guard	Right Hooved	Pink Bristles	Fresh Mud Puddle
Wilt Chamberoink	Swine Slam Dunk	Neon Headband	Right Hooved	Black Bristles	Loud Referee Whistle
Jimmy Trotter	Trotter Three Pointer	Golden Snout Guard	Left Hooved	Brown Bristles	Fresh Mud Puddle
Michael Swine Jordan	Squealing Fast Break	Sticky Grip Gloves	Right Hooved	Pink Bristles	Fresh Mud Puddle
Dennis Pigman	Muddy Crossover	Golden Snout Guard	Left Hooved	Brown Bristles	Fresh Mud Puddle
Larry Boar	Swine Slam Dunk	Neon Headband	Left Hooved	Pink Bristles	Loud Referee Whistle
Kyrie Swine	Swine Slam Dunk	Sparkly Pig Cape	Right Hooved	Pink Bristles	Fresh Mud Puddle
Kevin Durunt	Muddy Crossover	Springy Squeak Shoes	Left Hooved	Pink Bristles	Loud Referee Whistle
Chris Squealer	Swine Slam Dunk	Sticky Grip Gloves	Right Hooved	Black Bristles	Fresh Mud Puddle

CLUE 1 Addition

Coach Snout needs to count the championship basketballs. He tallies up the basketballs in the rack and adds the ones in the locker room to find the total.

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

T															
6965	3444	2564	7295	4226	7295	5653	2564	5763	6965	3444	9340	7295	7329	8806	
8404	8806	5533	8685	2564	7329	7295	7329	8806	4226	6965	8404	4226	9340	9203	8685

$3200 + 3765 = \square \rightarrow$ T	$4992 + 3814 = \square \rightarrow$ O	$3850 + 3445 = \square \rightarrow$ S
$3881 + 4523 = \square \rightarrow$ G	$2215 + 3318 = \square \rightarrow$ L	$1661 + 903 = \square \rightarrow$ E
$6045 + 3295 = \square \rightarrow$ A	$2362 + 4967 = \square \rightarrow$ N	$4108 + 4577 = \square \rightarrow$ D
$2072 + 3691 = \square \rightarrow$ C	$4788 + 4415 = \square \rightarrow$ R	$3869 + 1784 = \square \rightarrow$ P
$1257 + 2187 = \square \rightarrow$ H	$2221 + 2005 = \square \rightarrow$ U	

Scratch space:

CLUE 2 Rounding

The arena scale is a bit muddy. When we weigh the heavy pig feed, the digital display can only show the weight rounded to the nearest ten pounds.

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

R																	
290	4300	170	700	230	700	5000	5000	110	1700	3700	2300	1100	2300	900	1700	50	230
												R	R				
5000	90	7000	2900	1100	2300	1700	3700	230	700	1700	4300	290	290	4300	170	700	230

Round 291 to the nearest ten → **R**

Round 93 to the nearest ten → **N**

Round 172 to the nearest ten → **G**

Round 917 to the nearest hundred → **P**

Round 1,119 to the nearest hundred → **U**

Round 50 to the nearest ten → **C**

Round 4,259 to the nearest hundred → **I**

Round 2,862 to the nearest hundred → **Y**

Round 3,671 to the nearest hundred → **D**

Round 2,299 to the nearest hundred → **S**

Round 5,476 to the nearest thousand → **O**

Round 114 to the nearest ten → **V**

Round 682 to the nearest hundred → **H**

Round 234 to the nearest ten → **T**

Round 7,460 to the nearest thousand → **L**

Round 1,716 to the nearest hundred → **E**

Scratch space:

CLUE 3

Fractions of a number

The team ordered a giant box of training apples. To find out how many are ripe, we need to calculate exactly three-fifths of the pile.

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

A number line from 0 to 100. The line is marked with boxes for every 10 units (0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100). Below the line, the numbers 38, 24, 10, 40, 5, 40, 2, 10, 32, 38, 40, 2, 21, 18, 40, 24, 10, 26, 39, and 14 are written. There are two boxes labeled 'T' on the line, one at 38 and one at 32.

4/8 of 76 = → **T**

3/6 of 10 = → **U**

$$2/10 \text{ of } 195 = \boxed{} \rightarrow \boxed{\text{I}}$$

5/10 of 46 = → **M**

$$\frac{2}{3} \text{ of } 36 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$\frac{1}{6} \text{ of } 84 = \boxed{} \rightarrow \boxed{\text{N}}$$

$$2/8 \text{ of } 8 = \boxed{} \rightarrow \boxed{\text{P}}$$

$\frac{1}{6}$ of 156 = $\rightarrow$ **D**

$3/10$ of 60 = $\rightarrow$ **A**

$4/10$ of $80 = \boxed{} \rightarrow \boxed{\text{C}}$

$5/8$ of 64 = $\rightarrow$ **S**

$5/6$ of 12 = $\rightarrow$ **E**

$$\frac{1}{5} \text{ of } 105 = \boxed{} \rightarrow \boxed{\text{L}}$$

Scratch space:

CLUE 4
Order of operations

The training computer requires a security code. To unlock it, we must solve a puzzle using the correct order of operations with parentheses first.

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

W																		
44	76	15	75	54	50	30	60	24	50	37	21	57	24	43	26	18	76	43
75	50	26	31	76	31	75	75	60										

$5 \times 10 - 6 = \square \rightarrow \boxed{\text{W}}$

$12 \times 4 - 11 = \square \rightarrow \boxed{\text{K}}$

$1 + 7 \times 6 = \square \rightarrow \boxed{\text{S}}$

$8 \times 10 - 5 = \square \rightarrow \boxed{\text{O}}$

$34 + 5 \times 4 = \square \rightarrow \boxed{\text{U}}$

$5 + 8 \times 2 = \square \rightarrow \boxed{\text{B}}$

$3 \times 8 - 9 = \square \rightarrow \boxed{\text{F}}$

$12 \times 8 - 20 = \square \rightarrow \boxed{\text{E}}$

$20 + 3 \times 2 = \square \rightarrow \boxed{\text{T}}$

$51 + 3 \times 2 = \square \rightarrow \boxed{\text{R}}$

$10 + 5 \times 4 = \square \rightarrow \boxed{\text{D}}$

$9 \times 4 - 5 = \square \rightarrow \boxed{\text{H}}$

$10 \times 6 - 10 = \square \rightarrow \boxed{\text{N}}$

$33 + 3 \times 9 = \square \rightarrow \boxed{\text{P}}$

$3 + 3 \times 5 = \square \rightarrow \boxed{\text{L}}$

$5 \times 6 - 6 = \square \rightarrow \boxed{\text{I}}$

Scratch space:

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

The porky players need to share the clean team towels. We must divide the total pile of towels equally among all five starting players.

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:

$45 \div 9 = \boxed{}$

$48 \div 12 = \boxed{}$

$88 \div 11 = \boxed{}$

$18 \div 2 = \boxed{}$

$77 \div 7 = \boxed{}$

$144 \div 12 = \boxed{}$

$16 \div 8 = \boxed{}$

$48 \div 8 = \boxed{}$

$70 \div 7 = \boxed{}$

$27 \div 9 = \boxed{}$

$6 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain dribbles a squealing fast break, then adjusts a neon headband.
2. The villain throws a no look pork pass, then zips away in springy squeak shoes.
3. The villain throws a no look pork pass, then shines a golden snout guard.
4. The villain dribbles a squealing fast break, then tightens some sticky grip gloves.
5. The villain throws a no look pork pass, then flutters a sparkly pig cape.
6. The villain sinks a trotter three pointer, then zips away in springy squeak shoes.
7. The villain sinks a trotter three pointer, then tightens some sticky grip gloves.
8. The villain performs a swine slam dunk, then flutters a sparkly pig cape.
9. The villain dribbles a squealing fast break, then zips away in springy squeak shoes.
10. The villain executes a muddy crossover, then shines a golden snout guard.
11. The villain executes a muddy crossover, then flutters a sparkly pig cape.
12. The villain sinks a trotter three pointer, then shines a golden snout guard.

Answer Key

The Case of the Missing Golden Pig Trophy

Culprit: Yao Muck

Trotter Three Pointer · Sticky Grip Gloves · Right Hooved · Pink Bristles · Fresh Mud Puddle

Trail: Start 21 → Clue 1 17 → Clue 2 10 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SUSPECT HAS NO GOLDEN SNOUT GUARD"

$3200 + 3765 = 6965$ (T) · $4992 + 3814 = 8806$ (O) · $3850 + 3445 = 7295$ (S) · $3881 + 4523 = 8404$ (G) · $2215 + 3318 = 5533$ (L) · $1661 + 903 = 2564$ (E) · $6045 + 3295 = 9340$ (A) · $2362 + 4967 = 7329$ (N) · $4108 + 4577 = 8685$ (D) · $2072 + 3691 = 5763$ (C) · $4788 + 4415 = 9203$ (R) · $3869 + 1784 = 5653$ (P) · $1257 + 2187 = 3444$ (H) · $2221 + 2005 = 4226$ (U)

Clue 2 (Rounding): "RIGHT HOOVED SUSPECT ONLY USED THEIR RIGHT"

Round 291 to the nearest ten = 290 (R) · Round 93 to the nearest ten = 90 (N) · Round 172 to the nearest ten = 170 (G) · Round 917 to the nearest hundred = 900 (P) · Round 1,119 to the nearest hundred = 1100 (U) · Round 50 to the nearest ten = 50 (C) · Round 4,259 to the nearest hundred = 4300 (I) · Round 2,862 to the nearest hundred = 2900 (Y) · Round 3,671 to the nearest hundred = 3700 (D) · Round 2,299 to the nearest hundred = 2300 (S) · Round 5,476 to the nearest thousand = 5000 (O) · Round 114 to the nearest ten = 110 (V) · Round 682 to the nearest hundred = 700 (H) · Round 234 to the nearest ten = 230 (T) · Round 7,460 to the nearest thousand = 7000 (L) · Round 1,716 to the nearest hundred = 1700 (E)

Clue 3 (Fractions of a number): "THE SUSPECT SPLASHED IN A MUD PUDDLE"

$4/8$ of 76 = 38 (T) · $3/6$ of 10 = 5 (U) · $2/10$ of 195 = 39 (I) · $5/10$ of 46 = 23 (M) · $2/3$ of 36 = 24 (H) · $1/6$ of 84 = 14 (N) · $2/8$ of 8 = 2 (P) · $1/6$ of 156 = 26 (D) · $3/10$ of 60 = 18 (A) · $4/10$ of 80 = 32 (C) · $5/8$ of 64 = 40 (S) · $5/6$ of 12 = 10 (E) · $1/5$ of 105 = 21 (L)

Clue 4 (Order of operations): "WE FOUND PINK BRISTLES ON THE HOOP"

$5 \times 10 - 6 = 44$ (W) · $12 \times 4 - 11 = 37$ (K) · $1 + 7 \times 6 = 43$ (S) · $8 \times 10 - 5 = 75$ (O) · $34 + 5 \times 4 = 54$ (U) · $5 + 8 \times 2 = 21$ (B) · $3 \times 8 - 9 = 15$ (F) · $12 \times 8 - 20 = 76$ (E) · $20 + 3 \times 2 = 26$ (T) · $51 + 3 \times 2 = 57$ (R) · $10 + 5 \times 4 = 30$ (D) · $9 \times 4 - 5 = 31$ (H) · $10 \times 6 - 10 = 50$ (N) · $33 + 3 \times 9 = 60$ (P) · $3 + 3 \times 5 = 18$ (L) · $5 \times 6 - 6 = 24$ (I)

Clue 5 (Division facts (1-12)): surviving statement is box 7 → Yao Muck

$45 \div 9 = 5$ · $48 \div 12 = 4$ · $88 \div 11 = 8$ · $18 \div 2 = 9$ · $77 \div 7 = 11$ · $144 \div 12 = 12$ · $16 \div 8 = 2$ · $48 \div 8 = 6$ · $70 \div 7 = 10$ · $27 \div 9 = 3$ · $6 \div 6 = 1$