The Case of the Missing Meteor Fragment

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

Detective: _____ **Date:** _____

A giant meteor fragment, the pride of the Mesozoic Museum, has vanished overnight! Its special glow is gone. Lead detective Rex is on the case, but he needs your help to piece together the clues and find the dino-napper.

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 dino-napper is _____

Possible suspects

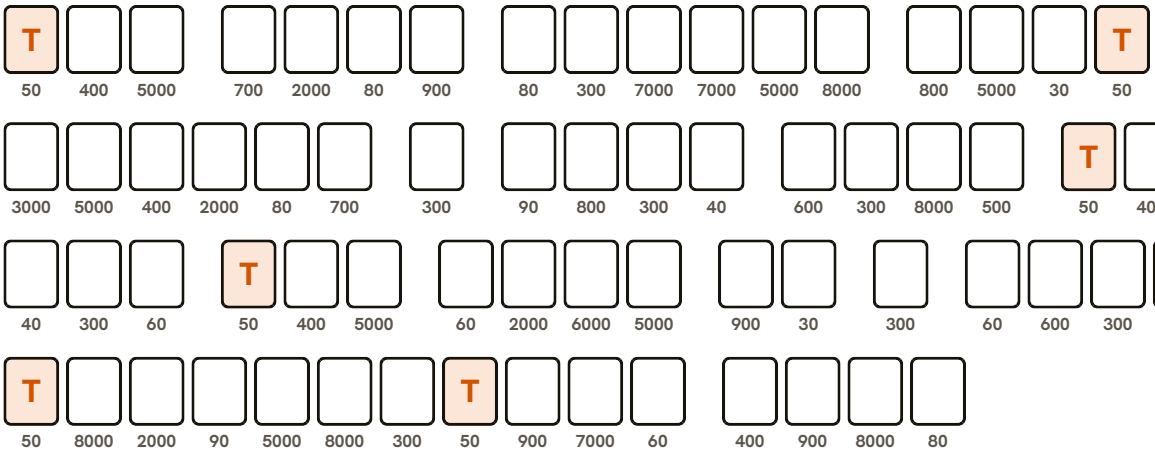
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	SPECIAL SKILL	GADGET	QUIRK	SCALE COLOR	VULNERABILITY
Chancellor Ceratosaurus	Can communicate with dinosaurs	Sonic whistle	Always faces east	Azure scales	Hates loud noises
Ambassador Archaeopteryx	Can dig super fast	Dino-scanner	Always faces west	Crimson scales	Hates loud noises
Sergeant Stegosaurus	Can control weather patterns	Sonic whistle	Always faces east	Azure scales	Can't swim
Duke Dilophosaurus	Can see in the dark	Sonic whistle	Always faces east	Azure scales	Loves loud noises
Lord Lystrosaurus	Can dig super fast	Sonic whistle	Always faces west	Azure scales	Can't swim
Jarl Jaggedrock	Can mimic any roar	Dino-scanner	Always faces east	Azure scales	Hates loud noises
Dr. Paleontologist	Can control weather patterns	Giant digging claw	Always faces east	Crimson scales	Hates loud noises
Knight Kentrosaurus	Can dig super fast	Dino-scanner	Always faces west	Azure scales	Can't swim
Captain Carcharodontosaurus	Can communicate with dinosaurs	Weather wand	Always faces east	Crimson scales	Loves loud noises
Admiral Allosaurus	Can mimic any roar	Weather wand	Always faces west	Azure scales	Hates loud noises
Professor Fossil	Can control weather patterns	Sonic whistle	Always faces west	Azure scales	Hates loud noises
Major Megalosaurus	Can mimic any roar	Weather wand	Always faces west	Golden scales	Hates loud noises
Mayor Maiasaura	Can see in the dark	Weather wand	Always faces west	Azure scales	Loves loud noises
Baron Von Bones	Can communicate with dinosaurs	Night-vision goggles	Always faces east	Azure scales	Hates loud noises
President Pachycephalosaurus	Can dig super fast	Night-vision goggles	Always faces east	Azure scales	Hates loud noises
Dame Agatha Ankylosaur	Can mimic any roar	Sonic whistle	Always faces west	Golden scales	Hates loud noises
Earl Edmontosaurus	Can dig super fast	Giant digging claw	Always faces west	Crimson scales	Can't swim
Viscount Velociraptor	Can dig super fast	Giant digging claw	Always faces west	Azure scales	Hates loud noises
Governor Giganotosaurus	Can mimic any roar	Giant digging claw	Always faces west	Azure scales	Hates loud noises
Marquis Muttaburrasaurus	Can see in the dark	Giant digging claw	Always faces west	Azure scales	Hates loud noises
Colonel Compsognathus	Can communicate with dinosaurs	Sonic whistle	Always faces east	Golden scales	Can't swim

CLUE 1 Rounding

> The security guards found footprints and a single, muddy glove. They wondered how many steps it would take to leave the museum if each step was as long as the glove.

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



Round 47 to the nearest ten ☐ → T

Round 6,652 to the nearest thousand ☐ → P

Round 492 to the nearest hundred ☐ → K

Round 5,047 to the nearest thousand ☐ → E

Round 62 to the nearest ten ☐ → S

Round 2,939 to the nearest thousand ☐ → B

Round 399 to the nearest hundred ☐ → H

Round 8,421 to the nearest thousand ☐ → R

Round 917 to the nearest hundred ☐ → O

Round 605 to the nearest hundred ☐ → M

Round 835 to the nearest hundred ☐ → L

Round 1,668 to the nearest thousand ☐ → I

Round 720 to the nearest hundred ☐ → D

Round 311 to the nearest hundred ☐ → A

Round 5,869 to the nearest thousand ☐ → Z

Round 78 to the nearest ten ☐ → N

Round 30 to the nearest ten ☐ → F

Round 87 to the nearest ten ☐ → C

Round 39 to the nearest ten ☐ → W

Scratch space:

CLUE 2 Word problems

> The museum's radar tracked the meteor fragment's energy signature as it was moved. The readings were a bit fuzzy, so the guards had to round them to the nearest hundred.

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

A witness saw the villain was

A			A				A		E			E		T
33	37	24	33	34	36	45	33	60		36	24		36	

.

There were 44 dino teeth. 11 were used up. How many dino teeth are left? ☐ → **A**

Dino detective found 46 amber chunks yesterday and 14 more today. How many amber chunks in all? ☐ → **C**

Dino detective lined up 2 rows of 12 ancient ferns. How many ancient ferns in all? ☐ → **W**

Dino detective found 18 petrified wood yesterday and 19 more today. How many petrified wood in all? ☐ → **L**

Dino detective lined up 6 rows of 6 dino teeth. How many dino teeth in all? ☐ → **S**

There were 41 fossilized eggs. 7 were used up. How many fossilized eggs are left? ☐ → **Y**

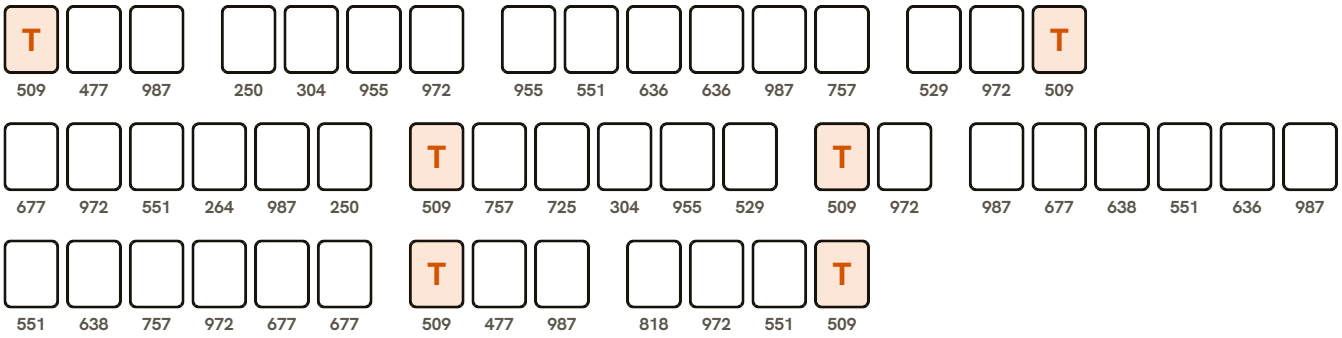
Dino detective found 6 amber chunks yesterday and 39 more today. How many amber chunks in all? ☐ → **F**

Scratch space:

CLUE 3 Addition

After the fragment was taken, the guards found several scattered pieces of equipment. They started a tally to see if they had enough spare parts to fix the display.

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



232 + 277 = ☐ → T

324 + 312 = ☐ → P

266 + 372 = ☐ → C

368 + 604 = ☐ → O

474 + 203 = ☐ → S

327 + 202 = ☐ → G

140 + 124 = ☐ → K

441 + 514 = ☐ → N

307 + 244 = ☐ → A

240 + 237 = ☐ → H

249 + 508 = ☐ → R

132 + 172 = ☐ → I

387 + 338 = ☐ → Y

525 + 462 = ☐ → E

161 + 89 = ☐ → D

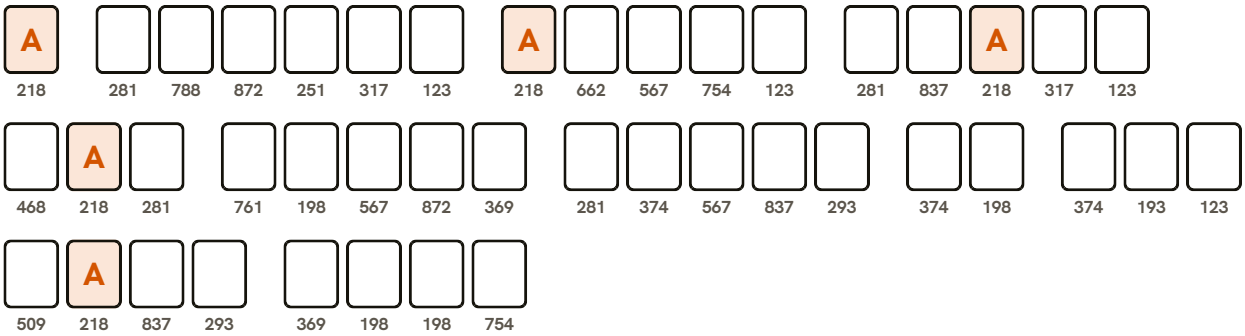
524 + 294 = ☐ → M

Scratch space:

CLUE 4 Subtraction

> The dino-napper must have dropped something while making their getaway. The guards are trying to figure out how much valuable dino-dust was lost.

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



587 - 369 = ☐ → A

1191 - 354 = ☐ → C

479 - 162 = ☐ → L

666 - 4 = ☐ → Z

200 - 77 = ☐ → E

360 - 109 = ☐ → G

1037 - 249 = ☐ → I

857 - 96 = ☐ → F

319 - 126 = ☐ → H

624 - 343 = ☐ → S

896 - 329 = ☐ → U

1207 - 335 = ☐ → N

891 - 382 = ☐ → B

799 - 45 = ☐ → R

739 - 370 = ☐ → D

274 - 76 = ☐ → O

451 - 77 = ☐ → T

550 - 82 = ☐ → W

482 - 189 = ☐ → K

Scratch space:

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

> The museum has a special scanner that can detect residual energy. It showed the fragment's energy was spread among several locations, and the guards need to know how much energy is at each spot.

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:

77 ÷ 11 = ☐ 88 ÷ 8 = ☐ 80 ÷ 8 = ☐ 48 ÷ 6 = ☐ 12 ÷ 1 = ☐

2 ÷ 2 = ☐ 21 ÷ 7 = ☐ 32 ÷ 8 = ☐ 25 ÷ 5 = ☐ 54 ÷ 9 = ☐

81 ÷ 9 = ☐

Step 2 - cross out the sentence with each answer:

1. The villain borrowed, then scrambled away.
2. The villain borrowed, then vanished.
3. The villain tricked, then disappeared.
4. The villain sneaked, then fled.
5. The villain borrowed, then disappeared.
6. The villain sneaked, then disappeared.
7. The villain sneaked, then vanished.
8. The villain stole, then vanished.
9. The villain borrowed, then sprinted off.
10. The villain sneaked, then sprinted off.
11. The villain tricked, then vanished.
12. The villain robbed, then scrambled away.

TEACHER / PARENT

Answer Key

The Case of the Missing Meteor Fragment

Culprit: Marquis Muttaburrasaurus

Can see in the dark · Giant digging claw · Always faces west · Azure scales · Hates loud noises

Trail: Start 21 → Clue 1 14 → Clue 2 9 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Rounding): "THE DINO NAPPER LEFT BEHIND A CLAW MARK THAT WAS THE SIZE OF A SMALL TRICERATOPS HORN"

Round 47 to the nearest ten = 50 (T) · Round 6,652 to the nearest thousand = 7000 (P) · Round 492 to the nearest hundred = 500 (K) · Round 5,047 to the nearest thousand = 5000 (E) · Round 62 to the nearest ten = 60 (S) · Round 2,939 to the nearest thousand = 3000 (B) · Round 399 to the nearest hundred = 400 (H) · Round 8,421 to the nearest thousand = 8000 (R) · Round 917 to the nearest hundred = 900 (O) · Round 605 to the nearest hundred = 600 (M) · Round 835 to the nearest hundred = 800 (L) · Round 1,668 to the nearest thousand = 2000 (I) · Round 720 to the nearest hundred = 700 (D) · Round 311 to the nearest hundred = 300 (A) · Round 5,869 to the nearest thousand = 6000 (Z) · Round 78 to the nearest ten = 80 (N) · Round 30 to the nearest ten = 30 (F) · Round 87 to the nearest ten = 90 (C) · Round 39 to the nearest ten = 40 (W)

Clue 2 (Word problems): "ALWAYS FACES WEST"

There were 44 dino teeth. 11 were used up. How many dino teeth are left? = 33 (A) · Dino detective found 46 amber chunks yesterday and 14 more today. How many amber chunks in all? = 60 (C) · Dino detective lined up 2 rows of 12 ancient ferns. How many ancient ferns in all? = 24 (W) · Dino detective found 18 petrified wood yesterday and 19 more today. How many petrified wood in all? = 37 (L) · Dino detective lined up 6 rows of 6 dino teeth. How many dino teeth in all? = 36 (S) · There were 41 fossilized eggs. 7 were used up. How many fossilized eggs are left? = 34 (Y) · Dino detective found 6 amber chunks yesterday and 39 more today. How many amber chunks in all? = 45 (F)

Clue 3 (Addition): "THE DINO NAPPER GOT SOAKED TRYING TO ESCAPE ACROSS THE MOAT"

232 + 277 = 509 (T) · 324 + 312 = 636 (P) · 266 + 372 = 638 (C) · 368 + 604 = 972 (O) · 474 + 203 = 677 (S) · 327 + 202 = 529 (G) · 140 + 124 = 264 (K) · 441 + 514 = 955 (N) · 307 + 244 = 551 (A) · 240 + 237 = 477 (H) · 249 + 508 = 757 (R) · 132 + 172 = 304 (I) · 387 + 338 = 725 (Y) · 525 + 462 = 987 (E) · 161 + 89 = 250 (D) · 524 + 294 = 818 (M)

Clue 4 (Subtraction): "A SINGLE AZURE SCALE WAS FOUND STUCK TO THE BACK DOOR"

587 - 369 = 218 (A) · 1191 - 354 = 837 (C) · 479 - 162 = 317 (L) · 666 - 4 = 662 (Z) · 200 - 77 = 123 (E) · 360 - 109 = 251 (G) · 1037 - 249 = 788 (I) · 857 - 96 = 761 (F) · 319 - 126 = 193 (H) · 624 - 343 = 281 (S) · 896 - 329 = 567 (U) · 1207 - 335 = 872 (N) · 891 - 382 = 509 (B) · 799 - 45 = 754 (R) · 739 - 370 = 369 (D) · 274 - 76 = 198 (O) · 451 - 77 = 374 (T) · 550 - 82 = 468 (W) · 482 - 189 = 293 (K)

Clue 5 (Division facts (1-12)): surviving statement is box 2 → Marquis Muttaburrasaurus

77 ÷ 11 = 7 · 88 ÷ 8 = 11 · 80 ÷ 8 = 10 · 48 ÷ 6 = 8 · 12 ÷ 1 = 12 · 2 ÷ 2 = 1 · 21 ÷ 7 = 3 · 32 ÷ 8 = 4 · 25 ÷ 5 = 5 · 54 ÷ 9 = 6 · 81 ÷ 9 = 9