The Great Fossil Mystery

Grade 1 math · Addition, Subtraction, Skip counting, Place value, Missing addends · Reading level grades 1-2

Detective: _____ **Date:** _____

A rare glowing dino egg went missing from the camp tent! The trackers left clue notes around the dig site to help you figure out who took 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 dino thief is _____

Possible suspects

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

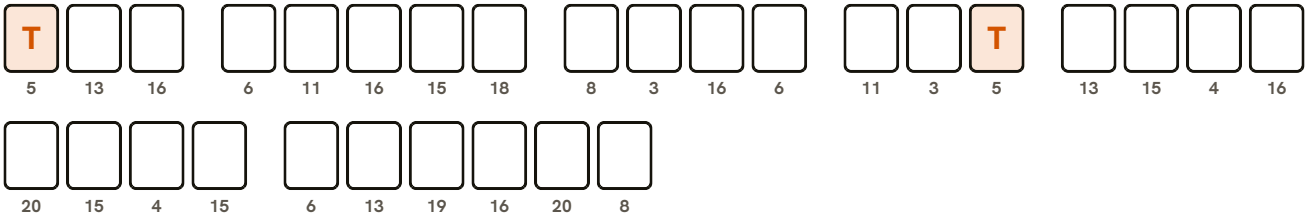
NAME	DINO MOVE	SPECIAL GEAR	DOMINANT HAND	HEAD FEATHERS	SCARE TOOL
Pete Pick	Rex Roar	Mud Glide	Left Handed	Green Crest	Loud Whistle
Palaeo Pam	Trike Charge	Mud Glide	Left Handed	Blue Spikes	Squeaky Toy
Maya Fossil	Stego Tail	Lava Shield	Left Handed	Blue Spikes	Squeaky Toy
Professor Dino	Rex Roar	Rock Armor	Left Handed	Blue Spikes	Loud Whistle
Quinn Quartz	Stego Tail	Rock Armor	Left Handed	Green Crest	Squeaky Toy
Rocky Rex	Rex Roar	Camouflage	Left Handed	Blue Spikes	Bright Flashlight
Tracker Tim	Stego Tail	Mud Glide	Left Handed	Green Crest	Squeaky Toy
Chisel Chet	Stego Tail	Camouflage	Left Handed	Blue Spikes	Bright Flashlight
Jack Jaw	Stego Tail	Lava Shield	Left Handed	Blue Spikes	Bright Flashlight
Opal Oval	Ptero Flight	Camouflage	Left Handed	Green Crest	Bright Flashlight
Gigi Ground	Rex Roar	Rock Armor	Left Handed	Red Feathers	Bright Flashlight
Nate Nest	Ptero Flight	Mud Glide	Right Handed	Red Feathers	Squeaky Toy
Sammy Scale	Ptero Flight	Camouflage	Left Handed	Blue Spikes	Bright Flashlight
Ivy Ivory	Raptor Speed	Rock Armor	Left Handed	Blue Spikes	Bright Flashlight
Kira King	Stego Tail	Night Vision	Left Handed	Blue Spikes	Loud Whistle
Fossil Fred	Raptor Speed	Camouflage	Left Handed	Blue Spikes	Squeaky Toy
Amber Ann	Raptor Speed	Rock Armor	Right Handed	Blue Spikes	Bright Flashlight
Dr Bones	Trike Charge	Camouflage	Left Handed	Green Crest	Bright Flashlight
Ranger Rita	Ptero Flight	Camouflage	Left Handed	Blue Spikes	Squeaky Toy
Digging Dan	Raptor Speed	Mud Glide	Right Handed	Blue Spikes	Loud Whistle
Mona Mud	Raptor Speed	Rock Armor	Left Handed	Blue Spikes	Squeaky Toy

make your own at mathcrackers.com

CLUE 1 Addition

You add up all the fossil brushes found near the tent to unlock Clue 1.

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



3 + 2 = ☐ → T	5 + 13 = ☐ → K	5 + 8 = ☐ → H	2 + 6 = ☐ → D
2 + 4 = ☐ → S	2 + 1 = ☐ → O	1 + 3 = ☐ → V	7 + 9 = ☐ → E
8 + 7 = ☐ → A	11 + 8 = ☐ → I	4 + 7 = ☐ → N	
13 + 7 = ☐ → L			

Scratch space:

CLUE 2 Subtraction

You take away the broken eggshells from the batch to find Clue 2.

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

T									T							T
8	10	12	19	2	19	4	12	3	8	15	19	1	12	16	8	

10	6	13	7	12	7

16 - 8 = ☐ → T

13 - 7 = ☐ → A

9 - 6 = ☐ → C

3 - 2 = ☐ → L

20 - 1 = ☐ → S

17 - 7 = ☐ → H

8 - 4 = ☐ → P

14 - 1 = ☐ → N

8 - 1 = ☐ → D

14 - 2 = ☐ → E

18 - 2 = ☐ → F

20 - 5 = ☐ → I

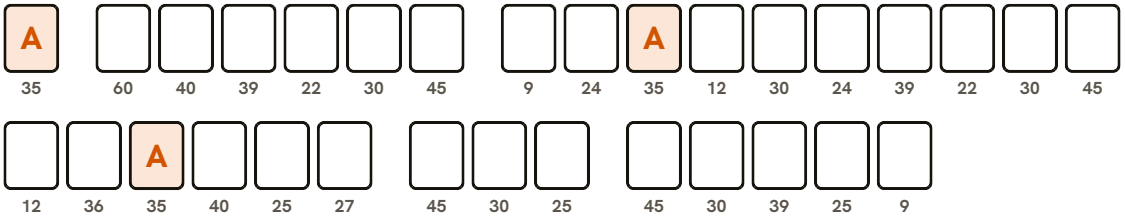
10 - 8 = ☐ → U

Scratch space:

CLUE 3 Skip counting

You skip count the big dino footprints in twos across the mud to reveal Clue 3.

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



Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 ☐ → **A**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 ☐ → **I**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 ☐ → **S**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 ☐ → **R**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 ☐ → **T**

Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 ☐ → **F**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 ☐ → **B**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 ☐ → **C**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 ☐ → **G**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ___, 26, 28 ☐ → **L**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 ☐ → **D**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 ☐ → **E**

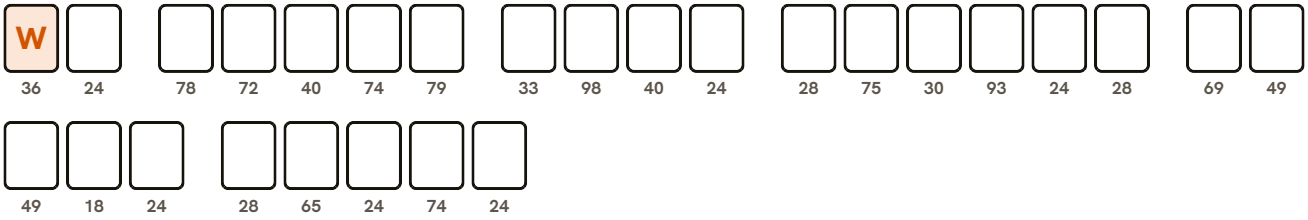
Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, ___, 33, 36 ☐ → **H**

Scratch space:

CLUE 4 Place value

You break down the count of amber gems into tens and ones to decode Clue 4.

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



What number has 3 tens and 6 ones? ☐ → W

What number has 9 tens and 8 ones? ☐ → L

What number has 2 tens and 8 ones? ☐ → S

What number has 2 tens and 4 ones? ☐ → E

What number has 4 tens and 0 ones? ☐ → U

What number has 1 ten and 8 ones? ☐ → H

What number has 7 tens and 4 ones? ☐ → N

What number has 6 tens and 5 ones? ☐ → C

What number has 4 tens and 9 ones? ☐ → T

What number has 7 tens and 9 ones? ☐ → D

What number has 7 tens and 5 ones? ☐ → P

What number has 7 tens and 8 ones? ☐ → F

What number has 3 tens and 3 ones? ☐ → B

What number has 6 tens and 9 ones? ☐ → A

What number has 9 tens and 3 ones? ☐ → K

What number has 3 tens and 0 ones? ☐ → I

What number has 7 tens and 2 ones? ☐ → O

Scratch space:

CLUE 5 Missing addends - the last clue

You find the missing number of bone pieces needed for the skeleton to reach Clue 5.

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:

2 + ___ = 13 ☐	6 + ___ = 16 ☐	9 + ___ = 10 ☐	6 + ___ = 10 ☐
7 + ___ = 9 ☐	3 + ___ = 6 ☐	10 + ___ = 19 ☐	6 + ___ = 11 ☐
6 + ___ = 18 ☐	8 + ___ = 16 ☐	3 + ___ = 10 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain soared on pterodactyl wings, then blended in with camouflage.
2. The villain ran with raptor speed, then slid away with a mud glide.
3. The villain charged like a trike, then blended in with camouflage.
4. The villain charged like a trike, then slid away with a mud glide.
5. The villain swung a stegosaurus tail, then slid away with a mud glide.
6. The villain roared like a rex, then blended in with camouflage.
7. The villain soared on pterodactyl wings, then slid away with a mud glide.
8. The villain swung a stegosaurus tail, then put on heavy rock armor.
9. The villain ran with raptor speed, then used night vision.
10. The villain ran with raptor speed, then put on heavy rock armor.
11. The villain swung a stegosaurus tail, then blended in with camouflage.
12. The villain roared like a rex, then slid away with a mud glide.

TEACHER / PARENT

Answer Key

The Great Fossil Mystery

Culprit: Rocky Rex

Rex Roar · Camouflage · Left Handed · Blue Spikes · Bright Flashlight

Trail: Start 21 → Clue 1 19 → Clue 2 16 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SNEAK DOES NOT HAVE LAVA SHIELD"

3 + 2 = 5 (T) · 5 + 13 = 18 (K) · 5 + 8 = 13 (H) · 2 + 6 = 8 (D) · 2 + 4 = 6 (S) · 2 + 1 = 3 (O) · 1 + 3 = 4 (V) · 7 + 9 = 16 (E) · 8 + 7 = 15 (A) · 11 + 8 = 19 (I) · 4 + 7 = 11 (N) · 13 + 7 = 20 (L)

Clue 2 (Subtraction): "THE SUSPECT IS LEFT HANDED"

16 - 8 = 8 (T) · 13 - 7 = 6 (A) · 9 - 6 = 3 (C) · 3 - 2 = 1 (L) · 20 - 1 = 19 (S) · 17 - 7 = 10 (H) · 8 - 4 = 4 (P) · 14 - 1 = 13 (N) · 8 - 1 = 7 (D) · 14 - 2 = 12 (E) · 18 - 2 = 16 (F) · 20 - 5 = 15 (I) · 10 - 8 = 2 (U)

Clue 3 (Skip counting): "A BRIGHT FLASHLIGHT SCARED THE THIEF"

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 = 35 (A) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 = 39 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 = 12 (S) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, ___, 45, 50 = 40 (R) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (T) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (F) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, ___, 70, 80 = 60 (B) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (C) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ___, 24, 26 = 22 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ___, 26, 28 = 24 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, ___, 30, 35 = 25 (E) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, ___, 33, 36 = 30 (H)

Clue 4 (Place value): "WE FOUND BLUE SPIKES AT THE SCENE"

What number has 3 tens and 6 ones? = 36 (W) · What number has 7 tens and 9 ones? = 79 (D) · What number has 9 tens and 8 ones? = 98 (L) · What number has 7 tens and 5 ones? = 75 (P) · What number has 2 tens and 8 ones? = 28 (S) · What number has 7 tens and 8 ones? = 78 (F) · What number has 2 tens and 4 ones? = 24 (E) · What number has 3 tens and 3 ones? = 33 (B) · What number has 4 tens and 0 ones? = 40 (U) · What number has 6 tens and 9 ones? = 69 (A) · What number has 1 ten and 8 ones? = 18 (H) · What number has 9 tens and 3 ones? = 93 (K) · What number has 7 tens and 4 ones? = 74 (N) · What number has 3 tens and 0 ones? = 30 (I) · What number has 6 tens and 5 ones? = 65 (C) · What number has 7 tens and 2 ones? = 72 (O) · What number has 4 tens and 9 ones? = 49 (T)

Clue 5 (Missing addends): surviving statement is box 6 → Rocky Rex

2 + ___ = 13 = 11 · 6 + ___ = 16 = 10 · 9 + ___ = 10 = 1 · 6 + ___ = 10 = 4 · 7 + ___ = 9 = 2 · 3 + ___ = 6 = 3 · 10 + ___ = 19 = 9 · 6 + ___ = 11 = 5 · 6 + ___ = 18 = 12 · 8 + ___ = 16 = 8 · 3 + ___ = 10 = 7