



# The Great Diamond Dino Egg Caper

Grade 2 math · Place value, Addition, Subtraction, Skip counting, Missing addends · Reading level grades 3-4

Detective: \_\_\_\_\_ Date: \_\_\_\_\_

A sneaky thief sneaked into the Cretaceous Craft Museum and swapped the glowing Diamond Dino Egg for a plain lump of cobblestone! Work through the math clues to 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 Griefer is** \_\_\_\_\_

# Possible suspects

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

| NAME  | DINO COMPANION | CRAFTED TOOL    | MINING HAND  | HELMET TYPE    | BAIT SNACK    |
|-------|----------------|-----------------|--------------|----------------|---------------|
| Finn  | Pterodactyl    | Redstone Drill  | Right-handed | Leather Cap    | Golden Apples |
| Nora  | T-Rex          | TNT Launcher    | Right-handed | Iron Helmet    | Cooked Salmon |
| Ella  | Pterodactyl    | Diamond Pick    | Left-handed  | Iron Helmet    | Cooked Salmon |
| Max   | Stegosaurus    | Diamond Pick    | Right-handed | Leather Cap    | Cooked Salmon |
| Jax   | Raptor         | Diamond Pick    | Right-handed | Leather Cap    | Golden Apples |
| Emma  | T-Rex          | Redstone Drill  | Right-handed | Leather Cap    | Golden Apples |
| Alex  | T-Rex          | Netherite Sword | Left-handed  | Leather Cap    | Cooked Salmon |
| Ivy   | T-Rex          | Netherite Sword | Left-handed  | Leather Cap    | Sweet Berries |
| Chloe | Pterodactyl    | Redstone Drill  | Right-handed | Leather Cap    | Cooked Salmon |
| Cole  | T-Rex          | Redstone Drill  | Left-handed  | Diamond Helmet | Golden Apples |
| Ruby  | Raptor         | Diamond Pick    | Right-handed | Leather Cap    | Cooked Salmon |
| Luke  | Triceratops    | Redstone Drill  | Right-handed | Diamond Helmet | Cooked Salmon |
| Steve | T-Rex          | Redstone Drill  | Left-handed  | Diamond Helmet | Sweet Berries |
| Zoe   | T-Rex          | Netherite Sword | Right-handed | Iron Helmet    | Golden Apples |
| Kai   | Triceratops    | Netherite Sword | Right-handed | Diamond Helmet | Sweet Berries |
| Noah  | Pterodactyl    | Golden Axe      | Left-handed  | Iron Helmet    | Cooked Salmon |
| Ava   | T-Rex          | Redstone Drill  | Right-handed | Diamond Helmet | Sweet Berries |
| Mia   | Triceratops    | Netherite Sword | Right-handed | Leather Cap    | Cooked Salmon |
| Owen  | Raptor         | TNT Launcher    | Right-handed | Leather Cap    | Cooked Salmon |
| Leo   | Pterodactyl    | Diamond Pick    | Right-handed | Iron Helmet    | Sweet Berries |
| Mason | Stegosaurus    | Diamond Pick    | Right-handed | Iron Helmet    | Cooked Salmon |

# CLUE 1 Place value

Check the place values on the supply chest lock to see which tool was NOT used.

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

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| T  |    |    |    |    |    |    |    |    | T  |    |    |    |    |    |    |    | T |
| 50 | 79 | 96 | 15 | 43 | 15 | 55 | 96 | 87 | 50 | 25 | 51 | 96 | 15 | 91 | 51 | 50 |   |
|    |    |    |    | T  |    | T  |    |    |    |    |    |    |    |    |    |    |   |
| 43 | 15 | 96 | 41 | 50 | 91 | 50 | 22 | 41 | 43 | 91 | 87 | 79 | 96 | 73 |    |    |   |

What number has 5 tens and 0 ones?  → **T**

What number has 2 tens and 5 ones?  → **D**

What number has 9 tens and 1 one?  → **N**

What number has 5 tens and 1 one?  → **O**

What number has 7 tens and 3 ones?  → **R**

What number has 5 tens and 5 ones?  → **P**

What number has 4 tens and 3 ones?  → **U**

What number has 7 tens and 9 ones?  → **H**

What number has 4 tens and 1 one?  → **A**

What number has 9 tens and 6 ones?  → **E**

What number has 8 tens and 7 ones?  → **C**

What number has 1 ten and 5 ones?  → **S**

What number has 2 tens and 2 ones?  → **L**

Scratch space:

## CLUE 2

Add up all the fossil blocks near the cave entrance to reveal the villain's mining hand.

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

30 76 29 70 75 65 80 98 35 26 88 90 30 57 57 76 65 34 50

26 88 25 76 30 76 50 90 84 29 84 25 26 88 35

$15 + 15 = \boxed{\phantom{00}} \rightarrow \boxed{\text{T}}$

$$20 + 14 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{W}}$$

$$23 + 27 = \boxed{\phantom{00}} \rightarrow \boxed{\text{A}}$$

$50 + 38 = \boxed{\phantom{00}} \rightarrow \boxed{\text{I}}$

$23 + 47 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{B}}$

$26 + 54 = \boxed{\phantom{00}} \rightarrow \boxed{\text{C}}$

$$61 + 29 = \boxed{\phantom{00}} \rightarrow \boxed{\text{N}}$$

$38 + 27 = \boxed{\phantom{00}} \rightarrow \boxed{0}$

$30 + 68 = \boxed{\phantom{00}} \rightarrow \boxed{\text{K}}$

$8 + 21 = \boxed{\phantom{00}} \rightarrow \boxed{\text{E}}$

$40 + 17 = \boxed{\phantom{00}} \rightarrow \boxed{\text{S}}$

$17 + 8 = \square \rightarrow \mathbf{G}$

$23 + 12 = \square \rightarrow \boxed{\mathbf{P}}$

$$18 + 8 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{R}}$$

$35 + 40 = \boxed{\phantom{00}} \rightarrow \boxed{\text{L}}$

$27 + 57 = \boxed{\phantom{00}} \rightarrow \boxed{\text{D}}$

$54 + 22 = \boxed{\phantom{00}} \rightarrow \boxed{\text{H}}$

Scratch space:

## Subtraction

Subtract the missing emeralds from the chest inventory to discover the villain's favorite snack.

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

73 84 28 36 26 38 75 84 38 38 40 28 18 73 87 35 47 38 36

88 87 73 35 28 75 26 76 28 43 59 36 18

90 - 17 =  → **S**

$120 - 32 = \boxed{\phantom{00}} \rightarrow \boxed{\text{W}}$

$$64 - 26 = \boxed{\phantom{00}} \rightarrow \boxed{0}$$

108 - 21 =  → **A**

80 - 5 =  → **F**

$48 - 12 = \boxed{\phantom{00}} \rightarrow \boxed{\text{N}}$

$62 - 22 = \boxed{\phantom{00}} \rightarrow \boxed{\text{K}}$

$44 - 18 = \square \rightarrow \boxed{\text{T}}$

79 - 32 =  → **M**

$104 - 28 = \boxed{\phantom{00}} \rightarrow \boxed{\mathbf{B}}$

$45 - 17 = \boxed{\phantom{00}} \rightarrow \boxed{\text{E}}$

$84 - 25 = \boxed{\phantom{00}} \rightarrow \boxed{1}$

$59 - 16 = \boxed{\phantom{00}} \rightarrow \boxed{\text{H}}$

$92 - 8 = \boxed{\phantom{00}} \rightarrow \boxed{\text{C}}$

$58 - 23 = \boxed{\phantom{00}} \rightarrow \boxed{\text{L}}$

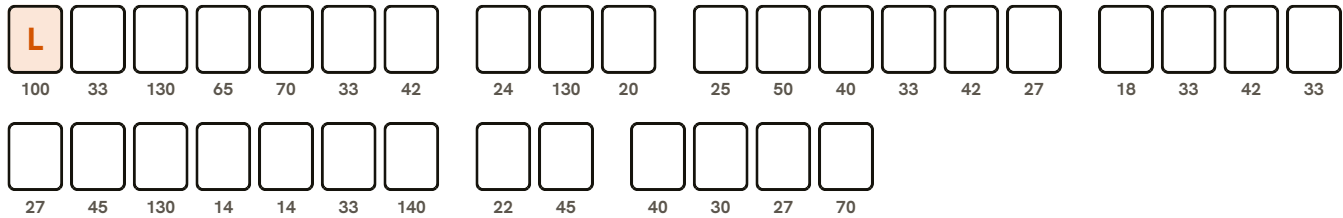
$50 - 32 = \boxed{\phantom{00}} \rightarrow \boxed{\text{D}}$

Scratch space:

## CLUE 4 Skip counting

Skip count along the line of obsidian blocks to trace the dropped helmet evidence.

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



Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, \_\_, 110, 120  → **L**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, \_\_, 60, 70  → **I**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, \_\_, 50, 55  → **N**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, \_\_, 35, 40  → **U**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, \_\_, 16, 18  → **G**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, \_\_, 80, 90  → **H**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, \_\_, 27, 30  → **C**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, \_\_, 30, 33  → **S**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, \_\_, 21, 24  → **W**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, \_\_, 45, 50  → **B**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, \_\_, 140, 150  → **A**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, \_\_, 22, 24  → **P**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, \_\_, 150, 160  → **D**

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, \_\_, 30, 35  → **F**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, \_\_, 36, 39  → **E**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, \_\_, 70, 75  → **T**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, \_\_, 45, 48  → **R**

Scratch space:

**CLUE 5****Missing addends - the last clue**

Find the missing addend of redstone torches to unlock the final piece of evidence.

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:**

$8 + \underline{\quad} = 19$

$2 + \underline{\quad} = 5$

$10 + \underline{\quad} = 19$

$10 + \underline{\quad} = 18$

$1 + \underline{\quad} = 6$

$2 + \underline{\quad} = 3$

$3 + \underline{\quad} = 15$

$5 + \underline{\quad} = 15$

$6 + \underline{\quad} = 12$

$9 + \underline{\quad} = 16$

$4 + \underline{\quad} = 6$

**Step 2 - cross out the sentence with each answer:**

1. The villain charged with a triceratops, then chopped with a golden axe.
2. The villain charged with a triceratops, then fired a tnt launcher.
3. The villain soared on a pterodactyl, then drilled with redstone.
4. The villain rode a fierce raptor, then swung a diamond pick.
5. The villain swung with a stegosaurus, then drilled with redstone.
6. The villain tamed a giant t-rex, then drilled with redstone.
7. The villain rode a fierce raptor, then brandished a netherite sword.
8. The villain tamed a giant t-rex, then fired a tnt launcher.
9. The villain charged with a triceratops, then brandished a netherite sword.
10. The villain soared on a pterodactyl, then chopped with a golden axe.
11. The villain swung with a stegosaurus, then swung a diamond pick.
12. The villain swung with a stegosaurus, then chopped with a golden axe.

# Answer Key

## The Great Diamond Dino Egg Caper

### Culprit: Ruby

Raptor · Diamond Pick · Right-handed · Leather Cap · Cooked Salmon

Trail: Start 21 → Clue 1 19 → Clue 2 13 → Clue 3 6 → Clue 4 4 → Clue 5 1

#### Clue 1 (Place value): "THE SUSPECT DOES NOT USE A TNT LAUNCHER"

What number has 5 tens and 0 ones? = 50 (T) · What number has 2 tens and 5 ones? = 25 (D) · What number has 9 tens and 1 one? = 91 (N) · What number has 5 tens and 1 one? = 51 (O) · What number has 7 tens and 3 ones? = 73 (R) · What number has 5 tens and 5 ones? = 55 (P) · What number has 4 tens and 3 ones? = 43 (U) · What number has 7 tens and 9 ones? = 79 (H) · What number has 4 tens and 1 one? = 41 (A) · What number has 9 tens and 6 ones? = 96 (E) · What number has 8 tens and 7 ones? = 87 (C) · What number has 1 ten and 5 ones? = 15 (S) · What number has 2 tens and 2 ones? = 22 (L)

#### Clue 2 (Addition): "THE BLOCK PRINTS SHOW A RIGHT HANDED GRIP"

$15 + 15 = 30$  (T) ·  $20 + 14 = 34$  (W) ·  $23 + 27 = 50$  (A) ·  $50 + 38 = 88$  (I) ·  $23 + 47 = 70$  (B) ·  $26 + 54 = 80$  (C) ·  $61 + 29 = 90$  (N) ·  $38 + 27 = 65$  (O) ·  $30 + 68 = 98$  (K) ·  $8 + 21 = 29$  (E) ·  $40 + 17 = 57$  (S) ·  $17 + 8 = 25$  (G) ·  $23 + 12 = 35$  (P) ·  $18 + 8 = 26$  (R) ·  $35 + 40 = 75$  (L) ·  $27 + 57 = 84$  (D) ·  $54 + 22 = 76$  (H)

#### Clue 3 (Subtraction): "SCENT OF COOKED SALMON WAS LEFT BEHIND"

$90 - 17 = 73$  (S) ·  $120 - 32 = 88$  (W) ·  $64 - 26 = 38$  (O) ·  $108 - 21 = 87$  (A) ·  $80 - 5 = 75$  (F) ·  $48 - 12 = 36$  (N) ·  $62 - 22 = 40$  (K) ·  $44 - 18 = 26$  (T) ·  $79 - 32 = 47$  (M) ·  $104 - 28 = 76$  (B) ·  $45 - 17 = 28$  (E) ·  $84 - 25 = 59$  (I) ·  $59 - 16 = 43$  (H) ·  $92 - 8 = 84$  (C) ·  $58 - 23 = 35$  (L) ·  $50 - 32 = 18$  (D)

#### Clue 4 (Skip counting): "LEATHER CAP FIBERS WERE SNAGGED ON BUSH"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, \_\_, 110, 120 = 100 (L) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, \_\_, 60, 70 = 50 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, \_\_, 50, 55 = 45 (N) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, \_\_, 35, 40 = 30 (U) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, \_\_, 16, 18 = 14 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, \_\_, 80, 90 = 70 (H) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, \_\_, 27, 30 = 24 (C) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, \_\_, 30, 33 = 27 (S) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, \_\_, 21, 24 = 18 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, \_\_, 45, 50 = 40 (B) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, \_\_, 140, 150 = 130 (A) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, \_\_, 22, 24 = 20 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, \_\_, 150, 160 = 140 (D) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, \_\_, 24, 26 = 22 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, \_\_, 30, 35 = 25 (F) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, \_\_, 36, 39 = 33 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, \_\_, 70, 75 = 65 (T) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, \_\_, 45, 48 = 42 (R)

#### Clue 5 (Missing addends): surviving statement is box 4 → Ruby

$8 + \underline{\quad} = 19 = 11$  ·  $2 + \underline{\quad} = 5 = 3$  ·  $10 + \underline{\quad} = 19 = 9$  ·  $10 + \underline{\quad} = 18 = 8$  ·  $1 + \underline{\quad} = 6 = 5$  ·  $2 + \underline{\quad} = 3 = 1$  ·  $3 + \underline{\quad} = 15 = 12$  ·  $5 + \underline{\quad} = 15 = 10$  ·  $6 + \underline{\quad} = 12 = 6$  ·  $9 + \underline{\quad} = 16 = 7$  ·  $4 + \underline{\quad} = 6 = 2$