The Case of the Missing Golden Compass

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

Detective: _____ **Date:** _____

Someone snatched the golden compass from the Ranger Station! The Jungle Bandit left clues all over the forest trail. Detective, grab your map and solve the case!

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 Jungle Bandit is _____

Possible suspects

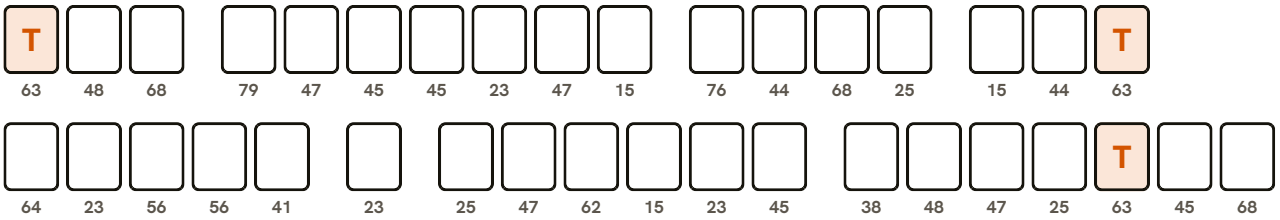
Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	JUNGLE GEAR	TREASURE TOOL	WATCH WRIST	HAT COLOR	FOREST SNACK
Vince Valley	Compass Watch	Magnifying Glass	Left Wrist	Red Cap	Crunchy Apples
Iris Ivy	Grappling Hook	Map Scroll	Right Wrist	Red Cap	Trail Mix
Toby Vine	Rope Launcher	Magnifying Glass	Left Wrist	Red Cap	Trail Mix
Tara Trail	Binoculars	Pocket Knife	Left Wrist	Blue Bandana	Dried Mango
Cora Creek	Binoculars	Map Scroll	Left Wrist	Red Cap	Trail Mix
Mina Mud	Grappling Hook	Brass Key	Left Wrist	Red Cap	Trail Mix
Hank Hill	Binoculars	Signal Whistle	Left Wrist	Red Cap	Trail Mix
Dax Ditch	Grappling Hook	Magnifying Glass	Right Wrist	Blue Bandana	Dried Mango
Ned Nest	Grappling Hook	Magnifying Glass	Left Wrist	Blue Bandana	Trail Mix
Sam Scout	Binoculars	Pocket Knife	Right Wrist	Blue Bandana	Trail Mix
Gail Gecko	Compass Watch	Magnifying Glass	Left Wrist	Blue Bandana	Dried Mango
Luke Log	Compass Watch	Map Scroll	Left Wrist	Red Cap	Dried Mango
Maya Map	Compass Watch	Map Scroll	Right Wrist	Red Cap	Crunchy Apples
Rosa River	Binoculars	Brass Key	Right Wrist	Blue Bandana	Crunchy Apples
Pete Pine	Binoculars	Pocket Knife	Left Wrist	Red Cap	Trail Mix
Finn Fox	Grappling Hook	Pocket Knife	Left Wrist	Red Cap	Dried Mango
Opal Owl	Binoculars	Map Scroll	Left Wrist	Green Helmet	Trail Mix
Ben Boulder	Binoculars	Map Scroll	Right Wrist	Red Cap	Trail Mix
Will Wood	Flashlight	Brass Key	Right Wrist	Red Cap	Crunchy Apples
Ella Fern	Flashlight	Signal Whistle	Right Wrist	Red Cap	Dried Mango
Kara Kite	Compass Watch	Magnifying Glass	Left Wrist	Green Helmet	Trail Mix

CLUE 1 Place value

> The ranger station radio crackled with a code about place values. We read the tens digit to open the security box.

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



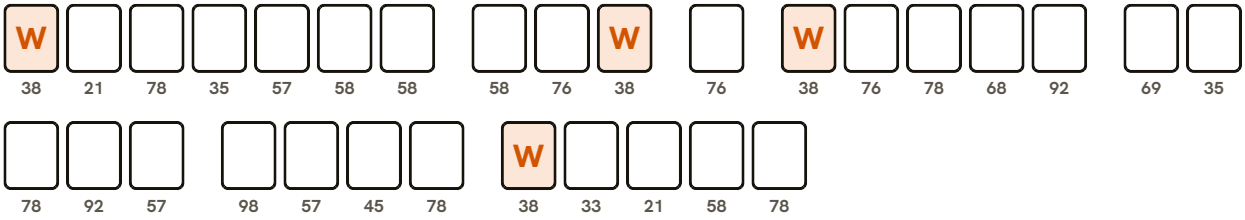
What number has 6 tens and 3 ones? ☐ → T	What number has 7 tens and 9 ones? ☐ → V
What number has 1 ten and 5 ones? ☐ → N	What number has 4 tens and 4 ones? ☐ → O
What number has 2 tens and 5 ones? ☐ → S	What number has 6 tens and 4 ones? ☐ → C
What number has 2 tens and 3 ones? ☐ → A	What number has 6 tens and 2 ones? ☐ → G
What number has 5 tens and 6 ones? ☐ → R	What number has 4 tens and 1 one? ☐ → Y
What number has 6 tens and 8 ones? ☐ → E	What number has 4 tens and 5 ones? ☐ → L
What number has 4 tens and 8 ones? ☐ → H	What number has 7 tens and 6 ones? ☐ → D
What number has 3 tens and 8 ones? ☐ → W	What number has 4 tens and 7 ones? ☐ → I

Scratch space:

CLUE 2 Addition

We added up all the footprints found along the muddy river bank to see which path to follow.

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



18 + 20 = ☐ → W

37 + 61 = ☐ → L

45 + 47 = ☐ → H

11 + 22 = ☐ → R

20 + 38 = ☐ → S

21 + 24 = ☐ → F

42 + 27 = ☐ → O

21 + 36 = ☐ → E

28 + 40 = ☐ → C

13 + 8 = ☐ → I

51 + 27 = ☐ → T

43 + 33 = ☐ → A

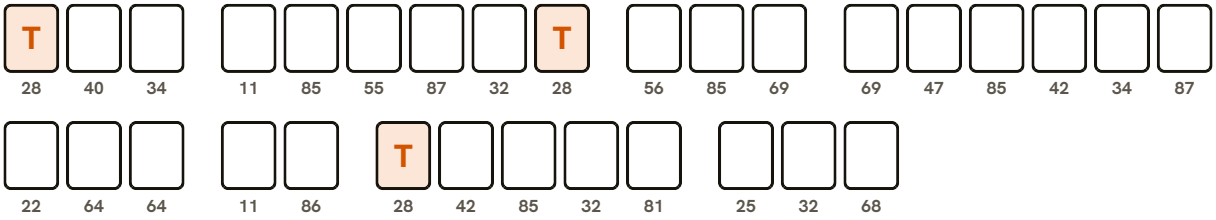
20 + 15 = ☐ → N

Scratch space:

CLUE 3 Subtraction

We subtracted the missing coconut snacks from the full pantry shelf to figure out what was taken.

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



36 - 8 = ☐ → T

58 - 33 = ☐ → M

76 - 8 = ☐ → X

115 - 30 = ☐ → A

115 - 34 = ☐ → L

89 - 34 = ☐ → N

72 - 25 = ☐ → C

83 - 27 = ☐ → W

40 - 18 = ☐ → O

59 - 25 = ☐ → E

127 - 40 = ☐ → D

14 - 3 = ☐ → B

79 - 10 = ☐ → S

82 - 18 = ☐ → F

53 - 11 = ☐ → R

107 - 21 = ☐ → Y

78 - 38 = ☐ → H

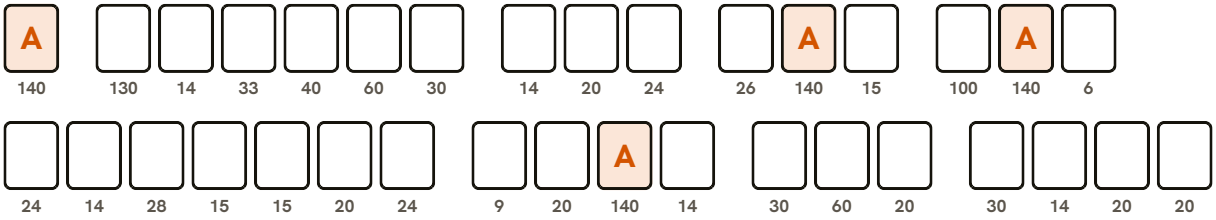
67 - 35 = ☐ → I

Scratch space:

CLUE 4 Skip counting

We counted the treehouse rope steps by twos to reach the top lookout in time.

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, 100, 110, 120, 130, ___, 150, 160 ☐ → **A**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 ☐ → **C**

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, ___, 65, 70 ☐ → **H**

Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 ☐ → **P**

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, ___, 50, 60 ☐ → **G**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 ☐ → **R**

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

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 ☐ → **O**

Scratch space:

CLUE 5 Missing addends - the last clue

> We figured out how many missing coins were needed to fill the treasure pouch completely.

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:

4 + ___ = 12 ☐	9 + ___ = 21 ☐	4 + ___ = 10 ☐	7 + ___ = 8 ☐
3 + ___ = 6 ☐	7 + ___ = 12 ☐	8 + ___ = 12 ☐	9 + ___ = 16 ☐
6 + ___ = 16 ☐	10 + ___ = 12 ☐	8 + ___ = 19 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain dashed past the parrot nest, then snatched the signal whistle.
2. The villain dashed past the parrot nest, then unlocked the crate with a brass key.
3. The villain zipped past on a zipline, then snatched the signal whistle.
4. The villain shinnied up a tall palm, then pocketed the small pocket knife.
5. The villain crawled through the secret tunnel, then unlocked the crate with a brass key.
6. The villain dashed past the parrot nest, then grabbed the shiny map scroll.
7. The villain swung across the muddy creek, then snatched the signal whistle.
8. The villain dashed past the parrot nest, then pocketed the small pocket knife.
9. The villain zipped past on a zipline, then picked up the magnifying glass.
10. The villain shinnied up a tall palm, then grabbed the shiny map scroll.
11. The villain crawled through the secret tunnel, then pocketed the small pocket knife.
12. The villain swung across the muddy creek, then unlocked the crate with a brass key.

TEACHER / PARENT

Answer Key

The Case of the Missing Golden Compass

Culprit: Toby Vine

Rope Launcher · Magnifying Glass · Left Wrist · Red Cap · Trail Mix

Trail: Start 21 → Clue 1 19 → Clue 2 12 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT CARRY A SIGNAL WHISTLE"

What number has 6 tens and 3 ones? = 63 (T) · What number has 7 tens and 9 ones? = 79 (V) · What number has 1 ten and 5 ones? = 15 (N) · What number has 4 tens and 4 ones? = 44 (O) · What number has 2 tens and 5 ones? = 25 (S) · What number has 6 tens and 4 ones? = 64 (C) · What number has 2 tens and 3 ones? = 23 (A) · What number has 6 tens and 2 ones? = 62 (G) · What number has 5 tens and 6 ones? = 56 (R) · What number has 4 tens and 1 one? = 41 (Y) · What number has 6 tens and 8 ones? = 68 (E) · What number has 4 tens and 5 ones? = 45 (L) · What number has 4 tens and 8 ones? = 48 (H) · What number has 7 tens and 6 ones? = 76 (D) · What number has 3 tens and 8 ones? = 38 (W) · What number has 4 tens and 7 ones? = 47 (I)

Clue 2 (Addition): "WITNESS SAW A WATCH ON THE LEFT WRIST"

18 + 20 = 38 (W) · 37 + 61 = 98 (L) · 45 + 47 = 92 (H) · 11 + 22 = 33 (R) · 20 + 38 = 58 (S) · 21 + 24 = 45 (F) · 42 + 27 = 69 (O) · 21 + 36 = 57 (E) · 28 + 40 = 68 (C) · 13 + 8 = 21 (I) · 51 + 27 = 78 (T) · 43 + 33 = 76 (A) · 20 + 15 = 35 (N)

Clue 3 (Subtraction): "THE BANDIT WAS SCARED OFF BY TRAIL MIX"

36 - 8 = 28 (T) · 58 - 33 = 25 (M) · 76 - 8 = 68 (X) · 115 - 30 = 85 (A) · 115 - 34 = 81 (L) · 89 - 34 = 55 (N) · 72 - 25 = 47 (C) · 83 - 27 = 56 (W) · 40 - 18 = 22 (O) · 59 - 25 = 34 (E) · 127 - 40 = 87 (D) · 14 - 3 = 11 (B) · 79 - 10 = 69 (S) · 82 - 18 = 64 (F) · 53 - 11 = 42 (R) · 107 - 21 = 86 (Y) · 78 - 38 = 40 (H) · 67 - 35 = 32 (I)

Clue 4 (Skip counting): "A BRIGHT RED CAP WAS DROPPED NEAR THE TREE"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, ___, 150, 160 = 140 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, ___, 110, 120 = 100 (W) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (B) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (C) · Skip-count by 3s. Fill the blank: 3, 6, ___, 12, 15 = 9 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, ___, 22, 24 = 20 (E) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, ___, 65, 70 = 60 (H) · Skip-count by 5s. Fill the blank: 5, 10, ___, 20, 25 = 15 (P) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, ___, 35, 40 = 30 (T) · Skip-count by 2s. Fill the blank: 2, 4, ___, 8, 10 = 6 (S) · Skip-count by 10s. Fill the blank: 10, 20, 30, ___, 50, 60 = 40 (G) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, ___, 16, 18 = 14 (R) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, ___, 26, 28 = 24 (D) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (O)

Clue 5 (Missing addends): surviving statement is box 9 → Toby Vine

4 + ___ = 12 = 8 · 9 + ___ = 21 = 12 · 4 + ___ = 10 = 6 · 7 + ___ = 8 = 1 · 3 + ___ = 6 = 3 · 7 + ___ = 12 = 5 · 8 + ___ = 12 = 4 · 9 + ___ = 16 = 7 · 6 + ___ = 16 = 10 · 10 + ___ = 12 = 2 · 8 + ___ = 19 = 11