The Case of the Missing Catnip Trophy

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

Detective: _____ **Date:** _____

Someone snuck into Whisker Haven and swiped the Golden Catnip Trophy! Help Detective Barnaby find the sneaky cat before naptime.

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 cat thief 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	FAVORITE TOY	COLLAR BELL	FUR PATTERN	SECRET FEAR
Oliver	Fast Dash	Shiny Ribbon	Silent Collar	Sleek Black	Loud Vacuum
Shadow	Fast Dash	Silver Bell	Silent Collar	Orange Tabby	Loud Vacuum
Penny	High Jump	Silver Bell	Silent Collar	Orange Tabby	Spray Bottle
Bandit	Fast Dash	Feather Wand	Jingle Bell	Calico Patches	Spray Bottle
Whiskers	Super Purr	Catnip Mouse	Jingle Bell	Calico Patches	Squeaky Toy
Luna	Super Purr	Laser Pointer	Jingle Bell	Sleek Black	Spray Bottle
Simba	Super Purr	Shiny Ribbon	Silent Collar	Calico Patches	Spray Bottle
Smokey	Fast Dash	Silver Bell	Silent Collar	Sleek Black	Loud Vacuum
Tiger	Night Vision	Laser Pointer	Jingle Bell	Orange Tabby	Loud Vacuum
Milo	Fast Dash	Shiny Ribbon	Jingle Bell	Orange Tabby	Spray Bottle
Cleo	Fast Dash	Catnip Mouse	Silent Collar	Orange Tabby	Spray Bottle
Bella	Fast Dash	Catnip Mouse	Jingle Bell	Orange Tabby	Loud Vacuum
Peanut	Super Purr	Silver Bell	Silent Collar	Orange Tabby	Squeaky Toy
Barnaby	Soft Paws	Silver Bell	Silent Collar	Sleek Black	Loud Vacuum
Mittens	Soft Paws	Silver Bell	Silent Collar	Orange Tabby	Spray Bottle
Felix	Night Vision	Shiny Ribbon	Silent Collar	Calico Patches	Spray Bottle
Ziggy	Soft Paws	Shiny Ribbon	Jingle Bell	Orange Tabby	Spray Bottle
Hazel	Super Purr	Silver Bell	Jingle Bell	Calico Patches	Squeaky Toy
Jasper	High Jump	Catnip Mouse	Jingle Bell	Sleek Black	Loud Vacuum
Socks	High Jump	Laser Pointer	Silent Collar	Orange Tabby	Spray Bottle
Pumpkin	Fast Dash	Feather Wand	Silent Collar	Orange Tabby	Spray Bottle

CLUE 1 Addition

Barnaby counts up the cat treats left on two trays to find the first clue.

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



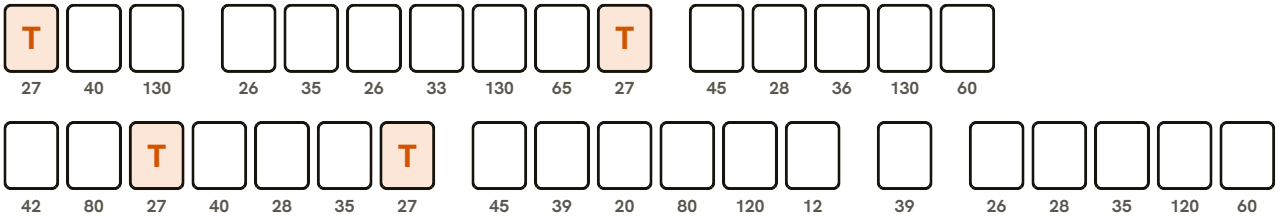
39 + 29 = ☐ → T	10 + 16 = ☐ → L	28 + 11 = ☐ → Y
12 + 11 = ☐ → W	35 + 48 = ☐ → D	35 + 15 = ☐ → S
21 + 52 = ☐ → A	19 + 36 = ☐ → N	9 + 18 = ☐ → E
27 + 45 = ☐ → P	50 + 38 = ☐ → O	31 + 63 = ☐ → R
11 + 27 = ☐ → F	13 + 27 = ☐ → I	36 + 45 = ☐ → K
18 + 10 = ☐ → H	53 + 27 = ☐ → C	

Scratch space:

CLUE 2 Skip counting

We skip count the paw prints in groups of five along the muddy path.

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



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

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 ☐ → N

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

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

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

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

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

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

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 ☐ → I

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

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

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

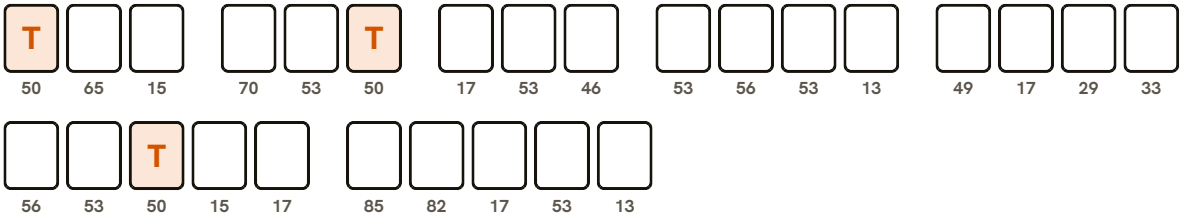
Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 ☐ → **M**

Scratch space:

CLUE 3 Subtraction

The keeper takes away the stolen cat toys from the box to see what is missing.

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



86 - 36 = ☐ → T

58 - 5 = ☐ → A

45 - 30 = ☐ → E

59 - 30 = ☐ → O

50 - 33 = ☐ → R

84 - 28 = ☐ → W

78 - 8 = ☐ → C

101 - 36 = ☐ → H

65 - 16 = ☐ → F

93 - 8 = ☐ → S

48 - 15 = ☐ → M

83 - 1 = ☐ → P

78 - 32 = ☐ → N

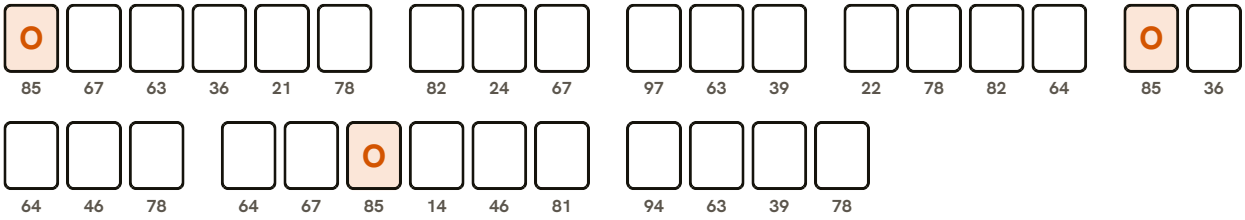
26 - 13 = ☐ → Y

Scratch space:

CLUE 4 Place value

The digital scale shows the cat food weight in tens and ones.

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



What number has 8 tens and 5 ones? ☐ → O

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

What number has 4 tens and 6 ones? ☐ → H

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

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

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

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

What number has 6 tens and 7 ones? ☐ → R

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

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

What number has 2 tens and 1 one? ☐ → G

What number has 1 ten and 4 ones? ☐ → P

What number has 8 tens and 1 one? ☐ → Y

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

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

What number has 6 tens and 4 ones? ☐ → T

Scratch space:

CLUE 5 Missing addends - the last clue

> We fill the treat jar to find out how many pieces are still needed.

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:

10 + ___ = 22 ☐	10 + ___ = 19 ☐	7 + ___ = 8 ☐	5 + ___ = 8 ☐
7 + ___ = 13 ☐	1 + ___ = 11 ☐	1 + ___ = 6 ☐	1 + ___ = 12 ☐
9 + ___ = 17 ☐	3 + ___ = 10 ☐	7 + ___ = 11 ☐	

Step 2 - cross out the sentence with each answer:

1. The villain leaped over the high fence, then chased the laser pointer.
2. The villain dashed across the lawn, then swiped the catnip mouse.
3. The villain purred very softly, then grabbed the feather wand.
4. The villain sneaked through the dark, then shook the silver bell.
5. The villain leaped over the high fence, then swiped the catnip mouse.
6. The villain dashed across the lawn, then grabbed the feather wand.
7. The villain leaped over the high fence, then untangled the shiny ribbon.
8. The villain sneaked through the dark, then chased the laser pointer.
9. The villain walked on soft paws, then shook the silver bell.
10. The villain purred very softly, then shook the silver bell.
11. The villain purred very softly, then untangled the shiny ribbon.
12. The villain leaped over the high fence, then shook the silver bell.

TEACHER / PARENT

Answer Key

The Case of the Missing Catnip Trophy

Culprit: Cleo

Fast Dash · Catnip Mouse · Silent Collar · Orange Tabby · Spray Bottle

Trail: Start 21 → Clue 1 19 → Clue 2 11 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Addition): "THE SNEAKY CAT DOES NOT PLAY WITH FEATHER WAND"

39 + 29 = 68 (T) · 10 + 16 = 26 (L) · 28 + 11 = 39 (Y) · 12 + 11 = 23 (W) · 35 + 48 = 83 (D) · 35 + 15 = 50 (S) · 21 + 52 = 73 (A) · 19 + 36 = 55 (N) · 9 + 18 = 27 (E) · 27 + 45 = 72 (P) · 50 + 38 = 88 (O) · 31 + 63 = 94 (R) · 11 + 27 = 38 (F) · 13 + 27 = 40 (I) · 36 + 45 = 81 (K) · 18 + 10 = 28 (H) · 53 + 27 = 80 (C)

Clue 2 (Skip counting): "THE SUSPECT MOVED WITHOUT MAKING A SOUND"

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, ___, 30, 33 = 27 (T) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, ___, 28, 30 = 26 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, ___, 30, 32 = 28 (O) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, ___, 14, 16 = 12 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, ___, 130, 140 = 120 (N) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, ___, 36, 39 = 33 (P) · Skip-count by 10s. Fill the blank: 10, 20, 30, ___, 50, 60 = 40 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, ___, 22, 24 = 20 (K) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, ___, 39, 42 = 36 (V) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, ___, 40, 45 = 35 (U) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ___, 42, 45 = 39 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, ___, 140, 150 = 130 (E) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, ___, 90, 100 = 80 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, ___, 70, 75 = 65 (C) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, ___, 65, 70 = 60 (D) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, ___, 45, 48 = 42 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, ___, 50, 55 = 45 (M)

Clue 3 (Subtraction): "THE CAT RAN AWAY FROM WATER SPRAY"

86 - 36 = 50 (T) · 58 - 5 = 53 (A) · 45 - 30 = 15 (E) · 59 - 30 = 29 (O) · 50 - 33 = 17 (R) · 84 - 28 = 56 (W) · 78 - 8 = 70 (C) · 101 - 36 = 65 (H) · 65 - 16 = 49 (F) · 93 - 8 = 85 (S) · 48 - 15 = 33 (M) · 83 - 1 = 82 (P) · 78 - 32 = 46 (N) · 26 - 13 = 13 (Y)

Clue 4 (Place value): "ORANGE FUR WAS LEFT ON THE TROPHY CASE"

What number has 8 tens and 5 ones? = 85 (O) · What number has 8 tens and 2 ones? = 82 (F) · What number has 4 tens and 6 ones? = 46 (H) · What number has 2 tens and 2 ones? = 22 (L) · What number has 2 tens and 4 ones? = 24 (U) · What number has 3 tens and 6 ones? = 36 (N) · What number has 9 tens and 7 ones? = 97 (W) · What number has 6 tens and 7 ones? = 67 (R) · What number has 7 tens and 8 ones? = 78 (E) · What number has 6 tens and 3 ones? = 63 (A) · What number has 2 tens and 1 one? = 21 (G) · What number has 1 ten and 4 ones? = 14 (P) · What number has 8 tens and 1 one? = 81 (Y) · What number has 3 tens and 9 ones? = 39 (S) · What number has 9 tens and 4 ones? = 94 (C) · What number has 6 tens and 4 ones? = 64 (T)

Clue 5 (Missing addends): surviving statement is box 2 → Cleo

10 + ___ = 22 = 12 · 10 + ___ = 19 = 9 · 7 + ___ = 8 = 1 · 5 + ___ = 8 = 3 · 7 + ___ = 13 = 6 · 1 + ___ = 11 = 10 · 1 + ___ = 6 = 5 · 1 + ___ = 12 = 11 · 9 + ___ = 17 = 8 · 3 + ___ = 10 = 7 · 7 + ___ = 11 = 4