



The Grand Greenhouse Heist

Grade 3 math · Place value, Multiplication, Rounding, Skip counting, Division · Reading level grades 3-4

Detective: _____ **Date:** _____

Someone has snuck into the Grand Greenhouse and stolen the rare Rainbow Orchid! The Head Botanist is counting on your detective skills. Search the flower beds, analyze the clues, and help us save the flower show!

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 Blossom Bandit is _____

Possible suspects

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

NAME	SIGNATURE BLOOM	GARDENING GEAR	DOMINANT HAND	PETAL DYE HAIR COLOR	GARDEN ALLERGY
Clover Oately	Giant Lily	Golden Trowel	Right-handed spade	Leaf Green Hair	Scared of Honeybees
Aster Williams	Giant Lily	Silver Pruners	Left-handed spade	Petal Pink Hair	Dislike of Peat Moss
Basil Green	Giant Lily	Golden Trowel	Right-handed spade	Violet Blue Hair	Sneeze at Pine Pollen
Iris West	Giant Lily	Bronze Shears	Right-handed spade	Violet Blue Hair	Scared of Honeybees
Jasmin Aladin	Giant Lily	Iron Soil Scoop	Left-handed spade	Leaf Green Hair	Scared of Honeybees
Flora Faerie	Sweet Jasmine	Bronze Shears	Left-handed spade	Violet Blue Hair	Scared of Honeybees
Reed Richards	Golden Sunflower	Copper Watering Can	Right-handed spade	Leaf Green Hair	Scared of Honeybees
Petunia Dursley	Neon Tulip	Bronze Shears	Right-handed spade	Violet Blue Hair	Dislike of Peat Moss
Fern Arable	Golden Sunflower	Golden Trowel	Right-handed spade	Leaf Green Hair	Scared of Honeybees
Oliver Wood	Golden Sunflower	Bronze Shears	Left-handed spade	Violet Blue Hair	Scared of Honeybees
Bud Baker	Sweet Jasmine	Copper Watering Can	Right-handed spade	Leaf Green Hair	Scared of Honeybees
Rose Evans	Sweet Jasmine	Silver Pruners	Right-handed spade	Petal Pink Hair	Dislike of Peat Moss
Ivy Carter	Midnight Rose	Golden Trowel	Left-handed spade	Leaf Green Hair	Scared of Honeybees
Sage Moon	Golden Sunflower	Golden Trowel	Right-handed spade	Violet Blue Hair	Sneeze at Pine Pollen
Holly Hunter	Sweet Jasmine	Bronze Shears	Right-handed spade	Leaf Green Hair	Dislike of Peat Moss
Willow Smith	Sweet Jasmine	Copper Watering Can	Right-handed spade	Leaf Green Hair	Sneeze at Pine Pollen
Poppy Peterson	Midnight Rose	Bronze Shears	Right-handed spade	Leaf Green Hair	Sneeze at Pine Pollen
Violet Beauregard	Sweet Jasmine	Iron Soil Scoop	Right-handed spade	Leaf Green Hair	Scared of Honeybees
Alder Vance	Neon Tulip	Silver Pruners	Right-handed spade	Violet Blue Hair	Sneeze at Pine Pollen
Lily Potter	Giant Lily	Iron Soil Scoop	Right-handed spade	Leaf Green Hair	Scared of Honeybees
Ash Ketchum	Neon Tulip	Iron Soil Scoop	Left-handed spade	Violet Blue Hair	Sneeze at Pine Pollen

CLUE 1

You find a locked fertilizer crate. Read the digit in the tens place to crack the code and open the lid!

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

Diagram illustrating a sequence of numbers arranged in two rows, with some boxes highlighted in orange and containing the letter 'T'.

Top Row (15 boxes):

- Box 1 (Orange, T): 3000
- Box 2 (White): 20
- Box 3 (White): 70
- Box 4 (White): 500
- Box 5 (White): 60
- Box 6 (White): 90
- Box 7 (White): 8000
- Box 8 (White): 700
- Box 9 (Orange, T): 3000
- Box 10 (White): 8000
- Box 11 (White): 100
- Box 12 (White): 70
- Box 13 (White): 400
- Box 14 (White): 90
- Box 15 (Orange, T): 100
- Box 16 (White): 3000
- Box 17 (White): 2000
- Box 18 (White): 400
- Box 19 (White): 70

Bottom Row (10 boxes):

- Box 1 (White): 60
- Box 2 (White): 300
- Box 3 (White): 100
- Box 4 (White): 5000
- Box 5 (White): 5000
- Box 6 (White): 70
- Box 7 (White): 600
- Box 8 (White): 300
- Box 9 (White): 60
- Box 10 (White): 90

What is the value of the 3 in 63,851?

What is the value of the 2 in 92,961?

A diagram illustrating a transformation. On the left is a white box with a black border. An arrow points from this box to another white box on the right, which contains the letter 'U' in black.

What is the value of the 7 in 1,722?

Diagram illustrating the relationship between a box containing a question mark and a box containing the letter 'I'.

What is the value of the 9 in 1,498?

A diagram consisting of a rectangular box on the left, followed by a right-pointing arrow, and then another rectangular box on the right containing the letter 'N'.

What is the value of the 6 in 8,632?

→ **R**

What is the value of the 5 in 2,529?

→ **B**

What is the value of the 1 in 174?

→ ☒

What is the value of the 4 in 475?

→ **S**

What is the value of the 2 in 3,327?

→ **H**

What is the value of the 8 in 8,220?

→ **D**

What is the value of the 3 in 4,345?

What is the value of the 7 in 8,473?

→ **E**

What is the value of the 6 in 2,169?

A diagram showing a box with an arrow pointing to a box labeled A.

What is the value of the 5 in 5,787?

Scratch space:

CLUE 2
Multiplication facts (1-12)

The suspect left footprints near rows of tulips. Multiply the rows of pots to find how many flowers they stepped over.

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

R																	
4	5	35	1	84	1	144	32	6	132	6	6	5	35	35	5	32	35
							R										
18	144	84	1	44	56	144	4	28	84	1	132	44	81	5	72		

$2 \times 2 = \square \rightarrow$ R	$1 \times 1 = \square \rightarrow$ H	$1 \times 6 = \square \rightarrow$ D	
$12 \times 11 = \square \rightarrow$ E	$9 \times 8 = \square \rightarrow$ L	$7 \times 12 = \square \rightarrow$ T	
$4 \times 7 = \square \rightarrow$ K	$5 \times 1 = \square \rightarrow$ I	$11 \times 4 = \square \rightarrow$ S	$3 \times 6 = \square \rightarrow$ P
$12 \times 12 = \square \rightarrow$ A	$8 \times 7 = \square \rightarrow$ M	$9 \times 9 = \square \rightarrow$ O	
$7 \times 5 = \square \rightarrow$ G	$8 \times 4 = \square \rightarrow$ N		

Scratch space:

CLUE 3 Rounding

A broken bag of soil lies on the scale. Round the weight to the nearest ten to unlock the clue!

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

T			T															
300	500	700	300	500	600	700	70	200	7000	80	7000	60	7000	30	70	200	800	40

T													
300	500	700	6000	3000	2000	2000	600	80	5000	6000	700	700	400

Round 277 to the nearest hundred → **T**

Round 6,327 to the nearest thousand → **B**

Round 7,028 to the nearest thousand → **A**

Round 4,895 to the nearest thousand → **G**

Round 579 to the nearest hundred → **I**

Round 61 to the nearest ten → **W**

Round 214 to the nearest hundred → **R**

Round 791 to the nearest hundred → **O**

Round 716 to the nearest hundred → **E**

Round 419 to the nearest hundred → **S**

Round 38 to the nearest ten → **M**

Round 73 to the nearest ten → **F**

Round 81 to the nearest ten → **N**

Round 2,799 to the nearest thousand → **U**

Round 1,871 to the nearest thousand → **Z**

Round 499 to the nearest hundred → **H**

Round 29 to the nearest ten → **Y**

Scratch space:

CLUE 4 Skip counting

Follow the muddy boot prints on the greenhouse stepping stones. Count by fives to trace the path the suspect took.

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

G																G	
33	20	42	42	40	24	70	15	20	90	28	15	6	6	15	40	33	120
50	15	22	42	21	45	15	16	24	16	24	42	28	42	70	110	42	120

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

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

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

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 → **M**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **C**

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

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, __, 18, 20 → **T**

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

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, __, 120, 130 → **V**

Skip-count by 10s. Fill the blank: 10, 20, 30, __, 50, 60 → **N**

Skip-count by 5s. Fill the blank: 5, 10, __, 20, 25 → **I**

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

Skip-count by 2s. Fill the blank: 2, 4, __, 8, 10 → **P**

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

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **D**

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

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

Scratch space:

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

You find a box of stolen flower bulbs. Divide them equally among the plant pots to see how many bulbs go in each.

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:

$48 \div 12 = \boxed{}$

$36 \div 4 = \boxed{}$

$30 \div 3 = \boxed{}$

$20 \div 10 = \boxed{}$

$3 \div 1 = \boxed{}$

$77 \div 11 = \boxed{}$

$72 \div 9 = \boxed{}$

$60 \div 5 = \boxed{}$

$12 \div 12 = \boxed{}$

$132 \div 12 = \boxed{}$

$35 \div 7 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain climbs over the ivy trellis, then plucks the glowing rainbow petal.
2. The villain sneaks past the prize roses, then snatches the rare blossom seeds.
3. The villain climbs over the ivy trellis, then digs up the sleeping bulbs.
4. The villain slips through the orchid nursery, then plucks the glowing rainbow petal.
5. The villain slips through the orchid nursery, then pockets the secret plant food formula.
6. The villain slips through the orchid nursery, then digs up the sleeping bulbs.
7. The villain creeps through the fern greenhouse, then plucks the glowing rainbow petal.
8. The villain sneaks past the prize roses, then swipes the golden prize ribbon.
9. The villain sneaks past the prize roses, then digs up the sleeping bulbs.
10. The villain scrambles across the lily pad pond, then plucks the glowing rainbow petal.
11. The villain creeps through the fern greenhouse, then digs up the sleeping bulbs.
12. The villain sneaks past the prize roses, then plucks the glowing rainbow petal.

Answer Key

The Grand Greenhouse Heist

Culprit: Clover Oately

Giant Lily · Golden Trowel · Right-handed spade · Leaf Green Hair · Scared of Honeybees

Trail: Start 21 → Clue 1 18 → Clue 2 12 → Clue 3 5 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE BANDIT DOES NOT USE A COPPER CAN"

What is the value of the 3 in 63,851? = 3000 (T) · What is the value of the 2 in 92,961? = 2000 (U) · What is the value of the 7 in 1,722? = 700 (I) · What is the value of the 9 in 1,498? = 90 (N) · What is the value of the 6 in 8,632? = 600 (R) · What is the value of the 5 in 2,529? = 500 (B) · What is the value of the 1 in 174? = 100 (O) · What is the value of the 4 in 475? = 400 (S) · What is the value of the 2 in 3,327? = 20 (H) · What is the value of the 8 in 8,220? = 8000 (D) · What is the value of the 3 in 4,345? = 300 (C) · What is the value of the 7 in 8,473? = 70 (E) · What is the value of the 6 in 2,169? = 60 (A) · What is the value of the 5 in 5,787? = 5000 (P)

Clue 2 (Multiplication facts (1-12)): "RIGHT HANDED DIGGING PATHS MARK THE SOIL"

$2 \times 2 = 4$ (R) · $1 \times 1 = 1$ (H) · $1 \times 6 = 6$ (D) · $12 \times 11 = 132$ (E) · $9 \times 8 = 72$ (L) · $7 \times 12 = 84$ (T) · $4 \times 7 = 28$ (K) · $5 \times 1 = 5$ (I) · $11 \times 4 = 44$ (S) · $3 \times 6 = 18$ (P) · $12 \times 12 = 144$ (A) · $8 \times 7 = 56$ (M) · $9 \times 9 = 81$ (O) · $7 \times 5 = 35$ (G) · $8 \times 4 = 32$ (N)

Clue 3 (Rounding): "THE THIEF RAN AWAY FROM THE BUZZING BEES"

Round 277 to the nearest hundred = 300 (T) · Round 6,327 to the nearest thousand = 6000 (B) · Round 7,028 to the nearest thousand = 7000 (A) · Round 4,895 to the nearest thousand = 5000 (G) · Round 579 to the nearest hundred = 600 (I) · Round 61 to the nearest ten = 60 (W) · Round 214 to the nearest hundred = 200 (R) · Round 791 to the nearest hundred = 800 (O) · Round 716 to the nearest hundred = 700 (E) · Round 419 to the nearest hundred = 400 (S) · Round 38 to the nearest ten = 40 (M) · Round 73 to the nearest ten = 70 (F) · Round 81 to the nearest ten = 80 (N) · Round 2,799 to the nearest thousand = 3000 (U) · Round 1,871 to the nearest thousand = 2000 (Z) · Round 499 to the nearest hundred = 500 (H) · Round 29 to the nearest ten = 30 (Y)

Clue 4 (Skip counting): "GREEN HAIR CLIPPINGS MIXED WITH THE LEAVES"

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

Clue 5 (Division facts (1-12)): surviving statement is box 6 → Clover Oately

$48 \div 12 = 4$ · $36 \div 4 = 9$ · $30 \div 3 = 10$ · $20 \div 10 = 2$ · $3 \div 1 = 3$ · $77 \div 11 = 7$ · $72 \div 9 = 8$ · $60 \div 5 = 12$ · $12 \div 12 = 1$ · $132 \div 12 = 11$ · $35 \div 7 = 5$