**Ice Cream Choices**
Lindsay has a three scoop ice cream cone. She has a scoop of chocolate, vanilla, and strawberry ice cream. The chocolate ice cream is the last flavour she will eat. The vanilla scoop is not touching the chocolate. What is the order of the ice cream flavours?

**Snack Time**
Kathy, Lisa, and Dan each have a snack. One has banana, one has a chocolate bar, and one has raisins. Dan does not like candy. Kathy peels her snack. Lisa's snack melts on a hot day. Which snack does each child have?

**The Footy Match**
The Redskins and Eagles played a football game. The Redskins scored 34 points. Use the clues to figure out how many points the Eagles scored.
- It is less than 38
- It is more than 27
- It is a multiple of 4
- The two digits add up to 10

**Watching Travellers**
Of 200 travellers surveyed at an airport, 156 carried a mobile phone, 72 carried a laptop computer, and 49 had both items.
- How many travellers had only a mobile phone?
- How many travellers had neither item?

**The Concert**
Three musicians appeared at a concert. Their last names were Benton, Lanier, and Rosario. Each plays only one of the following instruments, guitar, piano or saxophone.
- Benton and the guitar player arrived at the concert together.
- The saxophone player performed before Benton.
- Rosario wished the guitar player good luck.

Who played each instrument?

**The Taste Test**
A soft drink company conducted a taste test of two new products, Zoom and Magna. Of the 461 people who were surveyed, 238 liked Zoom, 127 liked both Zoom and Magna, and 48 did not like either drink. How many people liked Magna?
Mike's Stamps
Mike has 300 stamps in his collection. Of these, 158 are from European countries, 143 have pictures of flags, and 87 are from European countries and have pictures of flags.
- How many stamps are from European countries, but do not have pictures of flags?
- How many are neither European nor have a flag picture?

Farmer Ben's Animals
Farmer Ben has only ducks and cows. He can’t remember how many of each he has, but he doesn’t need to remember because he knows he has 22 animals and that 22 is also his age. He also knows that the animals have a total of 56 legs, because 56 is also his father’s age. Assuming that each animal has all legs intact and no more, how many of each animal does Farmer Ben have?

The Long Jump Competition
Jeremy, Erin, Mel, and Paco competed in the long jump. Their jump lengths were 9 metres, 10 metres, 11 metres, and 12 metres. Paco jumped the farthest. Erin jumped an even number of metres. Mel jumped farther than Jeremy. How far did they each jump?

The Jewellery Maker
Sung Lee makes jewellery. One necklace uses two stars, two beads, and a diamond. The diamond is between two beads. Each star has a bead between it and the diamond. What is the order of the shapes?

The Sculpture Display
Romero is displaying his sculptures, a cat, a turtle, a dog, and a bird, on a table. The turtle is not last. The cat is neither first nor last. The dog is between the cat and the bird. In what order are the sculptures?

Queuing for Lunch
Tomas, Dante, Suzanne, and Kate are in the lunch line. Kate is standing between two boys. Tomas is not next to Suzanne. Suzanne is last in line. In what order are the four friends standing?

The Variety Show Performance
Laverne, Jody, Pearl, Leroy, and Cal are each performing in a variety show. Laverne will perform after Leroy. Pearl will perform third. Jody will perform before Pearl. Cal will perform before Jody. In what order will they perform?

When is Lunch?
Vicky has five classes before lunch each day. She has Maths before Science. She has Spanish before Maths. She has English right before lunch. She has History after Science. In what order does Vicky have classes in the morning?

The Ingraham's
There are 6 children in the Ingraham family. Denise is older than Steven, but younger than Eliot. Kayla is younger than all her brothers and sisters except for Kirk. Bernie is younger than Steven. Write the names of the Ingraham children in order from oldest to youngest.
**Lunch Purchases**
At lunch, Linda bought a taco for $3.50, juice for $1.49, and fruit salad for $1.75. If she gave the cashier a $10 bill, how much change should she receive?

**The Recycling Drive**
For a recycling drive, Nina’s Year Seven class filled 20 bags with aluminium cans. 65 cans fit in one bag. The class also filled 30 bags with plastic bottles. Only 45 bottles fit in a bag. Did the class collect more aluminium cans or plastic bottles? How many more are there?

**Gifts for Employees**
Mr Penny gives each of his 24 employees presents at the end of the year. Last year he gave each of them a $20 MP3 player, a $5 box of cookies, and a $50 gift certificate to a local department store. How much did Mr Penny spend on the gifts in all?

**Shavel’s Suit**
Shavel bought a suit, a blouse, and a belt at Celebrity Fashions. The price of the suit was $89 and the blouse cost $27. The total cost of all three items was $125. How much did the belt cost?

**Oil by the Case**
Lana buys oil by the case for her garage. Each case costs her $11.00 and contains 24 cans of oil. If she sells each can for $1.50, how much profit does she earn on a case?

**The Newspaper Round**
Colleen has a newspaper route. The table shows the number of papers she delivers each day. Colleen earns $0.10 for each weekday and Saturday paper and $0.50 for each Sunday paper. How much does Colleen earn in a week?

**Watching the Temperature**
The temperature rose 2° each hour that Joel was at the beach. When he arrived at 10:00 a.m., the temperature was 68°C. What was the temperature when he left at 4:00 a.m.?

**Pasta Sauce Capping**
A machine can cap 52 jars of pasta sauce per minute. How many jars of sauce can 8 machines cap in 15 minutes?

**The Car Odometer**
A car’s odometer read 36,392 kilometres at the start of a trip and 36,686 kilometres at the end of the trip. If the trip took 6 hours, what was the driver’s average speed in kilometres per hour?

**Mr Nolan’s Phone**
Mr Nolan bought a half dozen cordless phones on sale for $22.00 each. The original price was $29.00. He gave the cashier $140.00. How much change did he receive?
The Dog Show
Before the day of a dog show, 153 advance sales tickets were ordered at $9 each. How much more money must be taken in to bring the total sales to $3,000?

Dried Fruits
The Natural Way sells dried apricots for $4.95 a kilo, dried apple rings for $3.49 a kilo, and dried pineapple slices for $4.25 a kilo. Ani bought 2 kilos of each fruit and gave the cashier two $20 bills. How much change did she receive?

The Dairy Farm
There are 238 students going on a trip to Milky White’s Dairy Farm. The buses will depart from the school at 9:00 a.m., and return by 4:00 p.m. How many buses will be needed to transport all the students?

Fudge for Sale
Small boxes of fudge contain 16 pieces. Large boxes contain 30 pieces. Small boxes sell for $5 each and large boxes are $9 each. On Saturday, the store sold 10 small boxes and 15 large boxes. How much money did the store take in?

Measuring Heights
Inez is 3 centimetres shorter than Peter and 4 centimetres taller than Lynn. Lynn is 2 centimetres taller than Barry. How tall is Peter?

New Tyres
A Taxi Company bought new tyres for each of its 18 cars. Each tyre cost $80. How much did the company spend for tyres?

Fuel Savings
Mrs Simmons drove 392 kilometres and used 14 litres of fuel. She paid $1.72 per litres at a station 2 kilometres from her home. How much did she spend for fuel?

Board Game Production
On an assembly line, it takes 5 minutes to produce and package a popular board game. There are 62 workers at the factory and there are two 8 hour shifts each day. How many games can be produced and packaged in one day?

The Bus Fare
Marilyn paid $1.40 for the 2 kilometre bus ride to the train station. She then paid $6.25 for a 19 kilometre train ride to Baton Rouge. She paid the same amounts on her return trip home. How much did Marilyn spend for transportation?

The Longest Bridge
The Huey P Long Bridge in New Orleans is a cantilever truss bridge. It was completed in 1936 and is 1,851 metres long. The Greater New Orleans Bridge was completed 22 years later and also is a cantilever truss bridge. It is 1,575 metres long. How much longer is the Huey P Long Bridge than the Greater New Orleans Bridge?

Buying Notebooks
Notebooks come in packages of 3 and cost $4 per package. Pens come in packages of 4 and cost $2 per package. How much does it cost to buy a dozen notebooks and a dozen pencils?
New Uniforms
The coach ordered new uniforms for the cheerleading squad. Each uniform cost $59 and each pair of pom poms cost $7.50. The school had budgeted $800 for the new items. Did the order exceed the budget or was money left over? If money was left over, how much?

The Flower Garden
Each side of a square flower garden measures 10 metres. Fencing costs $7 per metre and a No Trespassing sign costs $3. What is the total cost of enclosing the garden and putting up the sign?

Hector’s Loose Change
Hector has 55 fifty cent pieces, twenty cent pieces, and ten cent pieces in his piggy bank. There are three times as many fifty cent pieces as ten cent pieces, and half as many twenty cent pieces as fifty cent pieces. What is the value of Hector’s coins?

Mr Schick’s Shirts
Mr Schick has 42 shirts that are either white, blue, or striped. He has twice as many striped shirts as white shirts. He has 6 more blue shirts than white shirts. How many of each type of shirt does he have?

Cynthia’s Coins
Cynthia has 80 fifty cent pieces, twenty cent pieces, ten cent pieces, and five cent pieces in her bank. There are four times as many five cent pieces as fifty cent pieces and one third as many ten cent pieces as five cent pieces. There are 8 more twenty cent pieces than fifty cent pieces. How much money does Cynthia have in her bank?

How many Pages?
A dictionary is opened at random. To which pages is it opened if the product of the facing page numbers is 2,162?

How Much has Each?
Together, Val and Ray have $50. Val has $7 more than Ray. How much money does each person have?

Drama Club
There were 100 tickets sold to the Drama Club’s performance of Phantom of the Opera. Adult tickets cost $5. Student tickets cost $2. In all, $410 was collected. How many of each kind of ticket were sold?

Calculating Ages
Monique’s mother is 23 years older than Monique. The product of their ages is 518. How old are Monique and her mother?

Gift Baskets
Fruitful Farms gave away 50 gift baskets as prizes. The baskets contained either 3 pears or 4 apples. How many of each type of basket were given away if 185 pieces of fruit were used?
The Wildlife Refuge
Each student on the trip to the Sabine National Wildlife Refuge paid the same amount. The total collected from the students was $589. Pilar paid for her ticket using exactly three bills.
- How much did each ticket cost?
- How many students went on the trip?

The Election
The candidates in a Student Council election were Lang, Breen, and Kovic. There were 500 votes cast. Breen received 39 votes more than Lang. Kovic lost the election by 25 votes. How many votes did each candidate receive?

Number Placement
Place the numbers 1 through 9 in the circles so that the sum along each of the five lines is 17.

The Treasure Chest Contest
The winner of the Hidden Treasure contest wins a free trip to a tropical island. The winner will then go to the mystery address to find the treasure.

Understand
You need to know what digits to put in order from least to greatest.

Plan
Use logical reasoning and a table to organize the information.

Solve
Make a table that lists all the possible digits under each letter and work through the clues.

Look Back
Check that all digits satisfy each clue.

Find the Hidden Treasure!

Where: ABC Diamond Road

Use these clues to figure out the address:

Clue 1 All the digits are different.

Clue 2 The digits are in order from least to greatest.

Clue 3 \( C = 4 \times A \)

Clue 4 \( B = 5 \)

Follow these steps to use logical reasoning to interpret the clues and the table to the right to help you find the mystery address.

1. Start with Clue 4: \( B = 5 \). Circle the 5 in the \( B \) column and cross out all the other numbers in the column.
2. By Clue 1, all the digits are different. So you know that neither \( A \) nor \( C \) can be 5, so cross out 6 & 8 in columns \( A \) and \( C \).
3. By Clue 2, the digits are in order from least to greatest. That means that \( A \) can't be any number greater than 5, so cross out 6-9 in column \( A \). Also, \( C \) can't be less than 5, so cross out 0-4 in column \( C \).
4. By Clue 3, \( A \times 4 = C \). Try the possible numbers for \( A \)
   Cross out the ones that don't work:
   - Try 0, \( 0 \times 4 = 0 \), that doesn't work since \( C \) can't be 0.
   - Try 1, \( 1 \times 4 = 4 \), that doesn't work since \( C \) can't be 4.
   - Try 2, \( 2 \times 4 = 8 \); that works. Circle 2 in column \( A \) and 8 in column \( C \).

1. What is the address of the hidden treasure? _________________