1.1.1Numbers Warmup

Q1: Express as Hill/ Stone/ Pebble: 6. 435: 4 hills 3 stones 5 pebbles 7. 267: 8. 999: 9. 211: 10. 650:	**Q2: Express as Suitcase, Box, Chocolate:** 1. 435: 4Suitcases 3Boxes 5Chocolates 2. 267: 3. 999: 4. 211: 5. 650:
Q3: Express as Garland, Flower, Petal: 11.435: 4 Garland 3 Flowers 5 Petals 12.267: 13.999: 14.211: 15. 650:	**Q4: Express as Boxes, Wheel, Spokes:** 1. 435: 4 Boxes 3 Wheels 5 Spokes 2. 267: 3. 999: 4. 211: 5. 650:
Q5: Express as School, Class, Students: 16.435: 4 School 3 Class 5 Students 17.267: 18.999: 19.211: 20. 650:	**Q6: Express as Cake, Pastry, Crumbs:** 6. 435: 4 Cake 3 Pastry 5 Crumbs 7. 267: 8. 999: 9. 211: 10. 650:

1.1.2 Face Value and Place Value

Ex1: '3' in 6359.

Trees	Plants	Flowers	Petals
6	3	5	9

Packing: 3 Plants = 300 Petals

Meaning: 6×1000 + 3×100 + 5×10 + 9×1

Place Value: 3×100

Face Value: 3

Q1: '4' in 5496.

Truck	Suitcase	Boxes	Chips

Packing:

Meaning:

Place Value:

Face Value:

Q2. '4' in 9436?

Farms	Pack	Kennel	Dogs

Packing:

Meaning:

Place Value:

Face Value:

Q3. '7' in 7288.

Packing:

Meaning:

Place Value:

Face Value:

Q4. '6' in 5926?

Farms	Pack	Kennel	Dogs

Packing:

Meaning:

Place Value:

Face Value:

Q5. '9' in 1293.

Packing:

Meaning:

Place Value:

Face Value:

1.1.3 Standard Form and Expanded Form

Ex.1. 5000 + 300+70 + 6

Packing : 1 Farm = 1000 Petals;

1 Plant = 100 Petals

1 Flower = 10 Petals

Expanded form: 5000 + 300 + 70 + 6

Meaning: 5×1000 + 3×100 + 7×10 + 6×1

Farms	Plants	Flowers	Petals
5	3	7	6

Standard form: 5376

Q1: 6000 +100+ 30 + 8

Packing :

Expanded form:

Meaning:

Standard form:

Q2. 1000 + 600+ 20 + 5

Packing :

Expanded form:

Meaning:

Standard form:

Q3. 8000 + 200+ 60 + 1

Packing :

Expanded form:

Meaning:

Standard form:

Ex 2. Expand 8357.

Trees **Plants** **Flowers** **Petals**

8 3 5 7

Packing: 1 Tree = 1000 Petals;

1 Plant = 100 Petals; 1 Flower = 10 Petals

Meaning: 8×1000 + 3×100 + 5×10 + 7×1

Expansion: 8000 + 300 + 50 + 7

Q1. Expand 3594.

Truck **Suitcase** **Boxes** **Chocs**

Packing:

Meaning:

Expansion:

Q2. Expand 6529.

Pack **Kennels** **Dogs** **Pups**

Packing:

Meaning:

Expansion:

Q3. Expand 2169.

Garland **Flowers** **Petals** **Bits**

Packing:

Meaning:

Expansion:

Q4. Expand 5555.

Pack **Kennels** **Dogs** **Pups**

Packing:

Meaning:

Expansion:

Q5. Expand 4546.

Garland **Flowers** **Petals** **Bits**

Packing:

Meaning:

Expansion:

1.1.4 Number Names

Ex. 1: 5327.

Trucks	Vans	Car	Cycles
5	3	2	7

Meaning: 5×1000 + 3×100 + 2×10 + 7×1

Number: 5327

Number Name: Five thousand three hundred twenty seven

Q1:1629.

Box	Suitcase	Cans	Pens

Meaning:

Number:

Number Name:

Q2: 3546

Trucks	Vans	Car	Cycles

Meaning:

Number:

Number Name:

Q3:1669

Box	Suitcase	Cans	Pens

Meaning:

Number:

Number Name:

Q4: 5657.

Meaning:

Number:

Number Name:

Q5:9454

Meaning:

Number:

Number Name:

Q6:7546. **Meaning:** **Number**: **Number Name:**	**Q7:**5456. **Meaning:** **Number**: **Number Name:**
Q8: 6547. **Meaning:** **Number**: **Number Name:**	**Q9:**8654. **Meaning:** **Number**: **Number Name:**
Q10: 6687. **Meaning:** **Number**: **Number Name:**	**Q11:**6743 **Meaning:** **Number**: **Number Name:**

1.1.5 Predecessor and Successor

Ex.1. Predecessor of 7999?

Definition: *Predecessor* is one less

Operation to be used: Subtraction

	Trees	Plants	Flowers	Petals
	7	9	9	9
			- 1	
Predecessor:	7	9	9	8

Q1. Predecessor of 6529

Definition:

Operation to be used:

Predecessor:

Q2. Predecessor of 6529

Definition:

Operation to be used:

Predecessor:

Q3. Predecessor of 6529

Definition:

Operation to be used:

Predecessor:

Q4. Predecessor of 6529

Definition:

Operation to be used:

Predecessor:

Q5. Predecessor of 6529

Definition:

Operation to be used:

Predecessor:

Ex.1. Successor of5565 **Definition**: *Predecessor* is one less **Operation to be used**: Subtraction Trees Plants Flowers Petals 7 9 9 9 - 1 **Successor:**7 9 9 8	**Q1.** Successor of5453 **Definition**: **Operation to be used**: **Successor:**
Q2. Successor of4544 **Definition**: **Operation to be used**: **Successor:**	**Q3.** Successor of 6529 **Definition**: **Operation to be used**: **Successor:**
Q4. Successor of5657 **Definition**: **Operation to be used**: **Successor:**	**Q5.** Successor of 6545 **Definition**: **Operation to be used**: **Successor:**

1.2.1 Comparing Numbers

Ex 1. 478 and 869

Baskets	Garlands	Flowers
Kapil:	4	7	8
Birbal:	8	6	9

Logic: Baskets > Garlands > Flowers

Baskets:Kapil > Birbal

Answer: Kapil has less than Birbal.

Symbolic Representation: 869 > 478

Ex2: 786 and 779

	Suitcase	Boxes	Chocolates
Sita	7	8	6
Mohan:	7	7	9

Logic: Suitcase > Boxes > Chocolates

Suitcases Equal, Sita has more Boxes

Answer: Sita has more than Mohan

Symbolic Interpretation: 786 > 779

Q1: 566 and 456

Sita

Mohan:

Logic:

Answer:

Symbolic Interpretation:

Q2:687 and 945

Answer:

Symbolic Interpretation:

Q3. 478, 459

Logic:

Answer:

Symbolic Representation:

Q4: 785, 775

Logic:

Answer:

Symbolic Interpretation:

Q5. 578, 693

Logic:

Answer:

Symbolic Representation:

Q6: 789, 788

Logic:

Answer:

Symbolic Interpretation:

Q7. 658, 668

Logic:

Answer:

Symbolic Representation:

Q8: 687. 898

Logic:

Answer:

Symbolic Interpretation:

1.2.2 Ascending Order

Ex1:735, 792, 128

	Cartons	Boxes	Chocolates
Bill:	7	3	6
Jill:	7	9	2
Mill:	1	2	8

Logic: Cartons > Boxes > Chocolates

Carton:Bill and Jill tie, Mill Third

Boxes:Jill > Bill, Jill 1st, Bill 2nd

Answer: Mill < Bill < Jill

Symbolic Interpretation: 736 < 792 < 128

Q1. 878, 787, 785

	Trucks	Suitcase	Boxes
Kaku:			
Jimmy:			
Miller:			

Logic:

Answer:

Symbolic Interpretation:

Q2:546, 787, 789

Logic:

Answer:

Symbolic Interpretation:

Q3:764, 278, 787

Logic:

Answer:

Symbolic Interpretation:

1.2.3 Descending Order

Ex1:527, 525, 532

	Bricks	Stones	Pebbles
Malu:	5	2	7
Bhalu:	5	2	5
Shalu:	5	3	2

Logic: Bricks > Stones >Pebbles

Bricks: All Same Stones: Shalu Highest

Pebbles: Malu second Bhalu last

Answer: Shalu>Malu>Bhalu

Symbolic Representation: 532 > 529 > 527

Q1 :527, 564, 435

	Bricks	Stones	Pebbles
Malu:			
Bhalu:			
Shalu:			

Logic:

Answer:

Symbolic Representation:

Q2: 676, 478, 578

Logic:

Answer:

Symbolic Representation:

Q3: 546, 757, 454

Logic:

Answer:

Symbolic Representation:

1.3.1 Rounding Numbers

Ex.1: Round off the 2387 to the nearest 10

Interpretation: Round off Chocs to Boxes.

0 or 1 or 2 or 3 or 4 or 5: Ignore, Remove all

5 or 6 or 7 or 8 or 9: Consider as new box

Logic: 7 chocolates are than 5

Consider as new box.

Chocolates: 0 (all 7 got packed)

Boxes: 9 (new packed box)

Answer: 2390

Ex2: Round off the 6753 to the nearest 10

Interpretation: Round off Chocs to Boxes.

0 or 1 or 2 or 3 or 4 or 5: Ignore, Remove all

5 or 6 or 7 or 8 or 9: Consider as new box

Logic: 3 chocolates are than 5

Ignore

Chocolates: 0 (ignored)

Boxes: 5 (new (no new boxes)

Answer: 6750

Q1: Round off 3597 to the nearest 10

Interpretation: Round off chocs to boxes.

0 or 1 or 2 or 3 or 4 or 5: Ignore, Remove all

5 or 6 or 7 or 8 or 9: Consider as new box

Logic:

Answer:

Q2: Round off 9754 to the nearest 10

Interpretation:

Logic:

Answer:

1.4.1 Greatest Number (No Repetition)

Ex1. Digits5, 3, 7 and 9 only.

Logic: The number should be greatest.

No of gardens should be greatest.

Biggest size: Garden **Biggest number:** 9

Bigger size: Plant **Bigger number:** 7

Big size: Flower **Big number:**5

Small size: Petal **Small number:**3

Greatest number: 9752

Q1: Digits 6, 2, 8 and 1 only.

Logic:

Biggest size: Biggest number:

Bigger size: Bigger number:

Big size:Big number:

Small size: Small number:

Greatest number:

Q2: Digits 2, 5, 1 and 4 only.

The number should be greatest.

No of gardens should be greatest.

Biggest size: Trucks **Biggest number:Bigger size:** Suitcase **Bigger number: Big size:** Boxes **Big number:**

Small size: Chocolates **Small number:**

Greatest number:

Q3: Digits 5, 8, 4 and 2 only.

The number should be greatest.

No of gardens should be greatest.

Biggest size: Biggest number:

Bigger size: Bigger number:

Big size: Big number:

Small size: Small number:

Greatest number:

1.4.2 Smallest Number (No Repetition)

Ex1: Digits 2, 1, 8 and 4 only.

Logic: Let's use small number for big size

Biggest size: Garden **Smallest number:** 1

Bigger size: Plant **Small number:** 2

Big size: Flower **Big number:** 4

Small size: Petal **Biggest number:** 8

Greatest number: 1 Garden, 2 Plant, 4 Flower, 8 Petals

Smallest Number: 1248

Q1. Digits 9, 2, 7 and 5 only.

Logic:

Biggest size: **Smallest number:**

Bigger size: **Small number:**

Big size: **Big number:**

Small size: **Biggest number:**

Greatest number:

Smallest Number:

Q2. Digits 7, 1, 9 and 3 only.

Logic:

Biggest size: **Smallest number:**

Bigger size: **Small number:**

Big size: **Big number:**

Small size: **Biggest number:**

Greatest number:

Smallest Number:

Q3. Digits 7, 4, 9 and 2 only.

Logic:

Biggest size: **Smallest number:**

Bigger size: **Small number:**

Big size: **Big number:**

Small size: **Biggest number:**

Greatest number:

Smallest Number:

1.4.3 Even and Odd Numbers

Ex1.5925 2952 3814 9682 5823

Trick: Look at Chocolates alone.

Others are not trouble makers.

	Suitcases	Boxes	Chocolates
5	9	2	**5**
2	9	5	**2**
3	8	1	**4**
9	6	8	**2**
5	8	2	**3**

Odd Numbers: 5925, 5823

Even Numbers: 2952, 3814, 9682

Q1:

5676, 4673, 5787, 7832, 8977

Trick:

	Suitcases	Boxes	Chocolates

Odd Numbers:

Even Numbers:

Q2. 5689, 7749, 5787, 8778, 7843

Trick:

	Suitcases	Boxes	Chocolates

Odd Numbers:

Even Numbers:

Q3.9879, 7874, 8949, 4898, 8934

Trick:

	Suitcases	Boxes	Chocolates

Odd Numbers:

Even Numbers: