पुना International School

Shree Swaminarayan Gurukul, Zundal

Class -III

MATH-MAGIC

Study materials

Chapter-8 -Who is heavier?

Summary

- Introduction
- Find which one of the following is heavier?
- Which unit g or kg will you use to weight the following?
- Conversion of weight
- Addition of weight
- Subtraction of weight
- Word problem
- Activity

❖ Introduction:

- Mass is a measure of how heavy something is. We use a balance scales or a weighing scales to measure mass (or weight)
- Mass is measured in grams (g) and kilograms (kg). We use grams to weigh lighter objects and kilograms to weigh heavier objects. 1 kg = 1000g

  Or

  1000g = 1kg
- The standard unit of measurement of mass is Kilogram.

❖ Find which one of the following is heavier?

1) Lunch box or School bag

- **School bag**

2) Elephant or Tiger

- Elephant

3) Apple or Pineapple

- Pineapple

4) Leaf or Tree

- Tree

5) Bus or Auto

- Bus

❖ Which unit g or kg will you use to weight the following?

1) Sugar = **Kg**
2) An apple = **G**
3) A dog = **Kg**
4) A ball = **G**
5) A watermelon = **Kg**
6) A bicycle = **Kg**
7) A feather = **G**
8) A key = **G**

❖ Conversion of weight:

A. Convert Kilogram to gram

1 kg = 1000 g

Eg: 5 kg = **5 kg × 1000 g = 5000 g**.

a) 42 kg = **42 kg × 1000 g = 42000 g.**
b) 18 kg = **18 kg × 1000 g = 18000 g**.
c) 14 kg = **14 kg × 1000 g = 14000 g.**
d) 81 kg = **81 kg × 1000 g = 81000 g.**
e) 36 kg = **36 kg × 1000 g = 36000 g.**

B. Convert gram to kilogram

1000 g = 1 kg

Eg: 42000 g = $\frac{\mathbf{42000}}{\mathbf{1000}}$ **= 42 kg**

a) 38000 g = $\frac{\mathbf{38000}}{\mathbf{1000}}$ **= 38 kg.**

b) 51000 g = $\frac{\mathbf{51000}}{\mathbf{1000}}$ **= 51 kg.**

c) 22000 g = $\frac{\mathbf{22000}}{\mathbf{1000}}$ **= 22 kg.**

d) 87000 g = $\frac{\mathbf{87000}}{\mathbf{1000}}$ **= 87 kg.**

e) 95000 g = $\frac{\mathbf{95000}}{\mathbf{1000}}$ **= 95 kg.**

❖ Addition of weight:

- **Step1:** Add the gram column
- **Step2:** Add the kg column

a) Add 75kg 582g and 13kg 410g

	kg	g
	7 5	5 8 2
+	1 3	4 1 0
	8 8	9 9 2

b) Add 94kg 215g and 6kg 757g

	kg	g
	9 4	2 1^{1} 5
+	0 6	7 5 7
	1 0 0	9 7 2

c) 55kg 540g + 12kg 410g

d) 25kg 505g + 15kg 045g

e) 55kg 425g + 25kg 254g

❖ Subtraction of weight:

- **Step1:** Subtract the gram column
- **Step2:** Subtract the kg column

a) Subtract 13kg 410g from 75kg 582g

	kg	g
	7 5	5 8 2
-	1 3	4 1 0
	6 2	1 7 2

b) 78kg 954g – 38kg 603g
c) 22kg 505g – 11kg 750g
d) 23kg 256g – 19kg 909g
e) 45kg 375g – 36kg 975g

❖ Word problem:

1) Ravi purchased 5kg 300g of a packet of rice and 4kg 200g of a packet of wheat flour. How much is the total weight of both the packets?

Solution:

Weight of rice = 5kg 300g

Weight of wheat flour = 4kg 200g

Total weight of both the packets = 5kg 300g + 4kg 200g

	kg	g
	5	3 0 0
+	4	2 0 0
	9	5 0 0

2) Dev weighs 39kg 900g. Manit weighs 35kg 600g. Who weighs more and by how much?

Solution:

Dev's weight = 39kg 900g

Manit's weight = 35kg 600g

Dev weighs more by = 39kg 900g – 35kg 600g

	kg	g
	3 9	9 0 0
-	3 5	6 0 0
	0 4	3 0 0

3) My weight is 30kg 900g. My friend weight is 28kg 880g. How much more is mine weight?

4) A vegetable vendor had 24kg 570g vegtables. He sold 12kg 470g in one day. What is the weight of vegetables that are left with him?

❖ Activity:

➢ Using weighing machines, find the weight of your body.
My weight is _____kg.

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Chapter -9 -How many times?

❖ Summary

- Tell how many times?
- Rewrite using + sign
- Count how many times
- Write the multiplication facts for the following
- Find the product by column method
- Word problem.

❖ Tell how many times?

1) If one honey bee 2 wings then, How many wings do 5 honey bees have?

➢ **2 +2 + 2 +2 + 2 = 10**

Or

5 times of 2 = 10

2) If one car have 4 wheels then, how many wheels do 6 cars have?

➢ **4 + 4 + 4 + 4 + 4 + 4 = 24**

Or

6 times of 4 = 24

3) If one pack 6 cup then, how many cups are there in 9 packs?

➢ **6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 = 54**

Or

9 times of 6 = 54

4) If one pack have 10 pencils then, how many pencils are there in 10 packs?

➢ **10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 = 100**

Or

10 times of 10 = 100

❖ Rewrite using the + sign:

a) 3 × 6 is **3** times **6** or **6 + 6 + 6**

b) 4 × 12 is 4 times 12 or 12 + 12 + 12 + 12.

c) 5 × 8 is 5 times 8 or 8 + 8 + 8 + 8 + 8.

d) 6 × 15 is 6 times 15 or 15 + 15 + 15 + 15 + 15 +15.

e) 7 × 6 is 7 times 6 or 6 + 6 + 6 + 6 + 6 + 6 + 6.

f) 2 × 9 is 2 times 9 or 9 + 9.

❖ Count how many times:

a) 7 + 7 + 7 + 7 + 7 = **5 times**

b) 4 + 4 + 4 + 4 = **4 times**

c) 3 + 3 + 3 + 3 + 3 + 3 = **6 times**

d) 15 + 15 + 15 = **3 times**

e) 20 + 20 = **2 times**

f) 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 = **10 times**

g) 17 + 17 + 17 + 17 + 17 = **5 times**

❖ Write the multiplication facts of the following:

Number	Multiplication facts	
55	**11×5**	**5×11**
45	**9×5**	**5×9**
27	**9×3**	**3×9**
48	**6×8**	**8×6**
64	**16×4**	**4×16**
117	**13×9**	**9×13**
140	**14×10**	**10×14**

- Find the product by column method:

a) 44 × 2

	40	**4**
2	**40 × 2** **= 80**	**4 × 2** **= 8**

80 + 8 = 88

b) 23 × 3

	20	**3**
3	**20 × 3** **= 60**	**3 × 3** **= 9**

60 + 9 = 69

c) 11 × 5

	10	**1**
5	**10 × 5** **= 50**	**1 × 5** **= 5**

50 + 5 = 55

d) 15 × 6

	10	**5**
6	**10 × 6** **= 60**	**5 × 6** **= 30**

60 + 30 = 90

e) 38 × 2

	30	**8**
2	**30 × 2** **= 60**	**8 × 2** **= 16**

60 + 16 = 76

❖ Word problem:

1) A box contains 6 apples. How many apples in all will seven boxes have?

Sol: **There are 7 boxes.**

Each box has 6 apples.

Total number of apples = 7×6 = 42

Seven boxes will have 42 apples.

2) There are four fans. Each fan has 3 blades. What is the total number of blades in all?

Sol: **There are 4 fans.**

Each fan has 3 blades.

Total number of blades = 4×3 = 12

There are 12 blades in all.

3) A shirt has 5 buttons. How many buttons would 3 shirts have?

Sol: **There are 3 shirts.**

Each shirt has 5 buttons.

Total number of buttons = 3×5 = 15

3 shirts will have 15 buttons.

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Chapter-10 - Play with patterns

Summary

- Introduction
- Complete the repeated patterns
- Complete the following number
- Fill in the blanks
- Solve the following and write Odd or Even against each no.
- Decoding the message
- Arrange these names in alphabetical order and number these names in the box.
- Activity

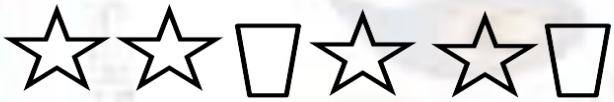
❖ Introduction:

Patterns are shapes, designs, groups of numbers that repeat themselves in a predictable manner.

❖ Complete the repeated patterns:

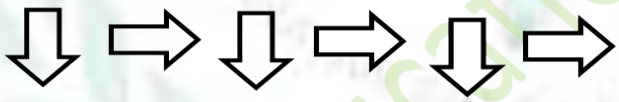
_____ _____

_____ _____



_____ _____

_____ _____



_____ _____

_____ _____

_____ _____

_____ _____

A B C A B C

_____ _____

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12, 12, 13, 13, 14, 14, 15, 15, _____ _____

❖Complete the following number:

a) 12, 22, 32, 42, **52, 62, 72**
b) 99, 89, 79, 69, **59, 49, 39**
c) 5, 10, 15, 20, **25, 30, 35**
d) 7, 9, 11, 13, **15, 17, 19**
e) 99, 199, 299, 399,**499,599,699**
f) 275, 276,277,278,**279,280,281**
g) 63, 61, 59, 57, **55, 53, 51**
h) 142, 144, 146, 148, **150, 152, 154**
i) 48, 46, 44, 42, **40, 38, 36**

❖Fill in the blanks:

1) All numbers that end with 0, 2, 4, 6, 8 are called **even** numbers.
2) All numbers that end with 1, 3, 5, 7,9are called **odd** number.
3) Even no. + Even no. = **even no**.
4) Even no. + Odd no. = **Odd no**.
5) Odd no. + Odd no. = **Even no**.
6) The smallest 1 digit odd no. is **1**
7) The smallest 1 digit even no. is **0**

❖ Solve the following and write odd or even against each no.

a) 45 + 21 = **66 Even**
b) 22 + 23 = **45 Odd**
c) 81 + 24 = **105 Odd**
d) 96 + 16 = **112 Even**

e) 81 + 21 = **102** **Even**
f) 98 + 41 = **139** **Odd**
g) 38 + 41 = **79** **Odd**

❖ Decoding the message:

1) If AB = 3, BC = 5, CD = 7 then, GH = **15**.
2) If Pen = 3, Book = 4, Cycle = 5 then, computer = **8**.
3) If 223 = 334, 45 = 56, 102 = 213 then, 781 = **892**.
4) If AB = 12, BC = 23, CD = 34 then, DE = **45**.

❖ Arrange these names in alphabetical order and number these names in the box.

1) Mohan **3**
2) Lila **2**
3) Chitra **1**
4) Venu **6**
5) Zeenat **7**
6) Shipra **5**
7) Nandu **4**

❖ Activity

➢ Make some patterns using match sticks.