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1. Do you know any poems about fish?

Solution:-

Yes. The poem is given below.

One, two, three, four, five.

Once I caught a fish alive,

Six, seven, eight, nine, ten,

Then I let it go again.

Why did you let it go?

Because it bit my finger so.

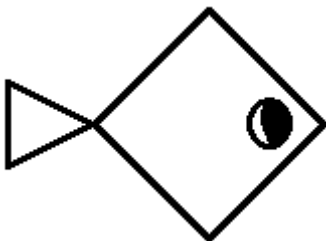
Which finger did it bite?

This little finger on the right.

2. Try to use a square and a triangle to draw a fish.

Solution:-

By using a square and a triangle, we can draw a fish like the one below.



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1. 'Meen' means a fish, and 'Meenakshi' is a girl whose eyes look like a fish. Can you think of someone who has such eyes? Draw a face with 'fish eyes'

Solution:-



2. How long is the biggest fish you can imagine?

Solution:-

A whale shark was as long as 18 m. So, I can imagine that a fish is about 18 metres long.

3. How many times longer is your big fish than the smallest fish?

Solution:-

Fishes can have very different sizes. The smallest fish is about 1 cm long, and the biggest fish is about 18 m long.

So, $1 \text{ m} = 100 \text{ cm}$

Then, $18 \text{ m} = 18 \times 100 = 1800 \text{ cm}$.

\therefore Big fish is 1800 times longer than the smallest fish.



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1. About how many kilograms do you weigh?

Solution:-

I weigh about 30 kilograms.

2. So, 12 children like you put together will weigh about kg.

Solution:-

The weight of one child is 30 kg.

Then,

The weight of 12 children and I put together = 12×30

= 360 kg

So, 12 children like me put together will weigh about 360 kg.

3. About how much more does the whale shark weigh than 12 children like you put together?

Solution:-

Whale shark weight is about 16000 kg.

The weight of 12 children and I put together = 360 kg

Then, how much more does the whale shark weigh than 12 children?

= Whale shark weight – Weight of 12 children and I put together

= 16000 – 360

= 15,640 kg

∴ The whale shark will weigh 15,640 kg more than the weight of 12 children and I put together.

FISHERMEN IN THEIR BOAT PAGE: 5-6

1. How many of you have seen the sea? Where did you see it? Did you see it in a movie or for real? How deep do you think the sea could be? Find out.

Solution:-

I and many of my friends have seen the sea at Mangalore. I have also seen the sea in a movie. I think the depth of the sea is more than 500 feet.

2. Do you know how to swim? Would you be scared of the high sea waves?

Solution:-

No, I don't know how to swim. Yes, I am scared of the high sea waves.

3. Close your eyes and imagine the sea with waves rising high.

Solution:-

Yes, I can imagine the sea with waves rising high; it was amazing.

4. How high do you think the waves can go?

Solution:-

I think that the waves can go more than 45 meters.

These log boats do not go very far. If the wind is helpful, they travel about 4 km in one hour.

1. How long will they take to go a distance of 10 km?

Solution:-

The log boats take one hour to travel 4 km.

Then, the log boats take two hours to travel = $2 \times 4 = 8$ km

But in half an hour, the log boats will travel = $4/2 = 2$ km

\therefore the total time they take to go a distance of 10 km = 2 and half an hour.

For 2 hours of boat travel = 8 km

For $\frac{1}{2}$ an hour of boat travel = 2 km

= $8 + 2 = 10$ km

2. Guess how far you can go in one hour if you walk fast.

Solution:-

I think I can cover 5 km to 6 km if I walk fast.

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Find out

Look at the sun and find out the direction from where it rises.



1. From where you are, what interesting thing do you see to your east?

Solution:-

I can see the sun rising in the east and the wind blowing.

2. Name two things that are lying to your west.

Solution:-

Hut and tree are the two things lying to my west.

Look at the different types of boats.

Some boats have motors and go further into the sea. Since they go far out, they can catch more fish. These boats travel faster, at the speed of about 20 km in one hour.

3. How far would the motorboats go in three and a half hours?

Solution:-

As mentioned in the question, the motorboats travel at the speed of about 20 km in one hour.

Then the distance travelled by motor boats in three and half hours = 20×3.5

= 70 km

4. How much time will they take to go 85 km?

Solution:-

As mentioned in the question, the motorboats travel at the speed of about 20 km in one hour.

Then the distance travelled by motorboats in four hours = 20×4

= 80 km

The distance travelled by motorboats in $\frac{1}{4}$ hour = $\frac{1}{4} \times 20$

= 5 km

\therefore the total time taken by motorboats to go a distance of 85 km = 4 hours 15 minutes.

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Which Boat Gets How Much?

In one trip, the log boat brings about 20 kg of fish. But other types of boats bring a bigger catch, as given in the table.

The table also shows the speed of each type of boat, which is how far each boat goes in one hour. Look at the table and calculate.

Type of boat	Catch of fish in one trip (in kg)	Speed of the boat (How far it goes in one hour)
Log boat	20	4 km per hour
Long tail boat	600	12 km per hour
Motorboat	800	20 km per hour
Machine boat	6000	22 km per hour

a) About how much fish in all will each type of boat bring in seven trips?

Solution:-

Type of boat	Catch of fish in one trip (in kg)	Catch of fish in 7 trips (in kg)
Log boat	20	$7 \times 20 = 140$
Long tail boat	600	$7 \times 600 = 4200$
Motorboat	800	$7 \times 800 = 5600$
Machine boat	6000	$7 \times 6000 = 42000$

b) About how far can a motorboat go in six hours?

Solution:-

Type of boat	Speed of the boat (How far it goes in one hour)	Distance covered by a boat in 6 hours (Distance = speed \times time)
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Log boat	4 km per hour	$4 \times 6 = 24$ km
Long tail boat	12 km per hour	$12 \times 6 = 72$ km
Motorboat	20 km per hour	$20 \times 6 = 120$ km
Machine boat	22 km per hour	$22 \times 6 = 132$ km

c) If a long tail boat has to travel 60 km, how long will it take?

Solution:-

From the given table, a long tail boat travels at a speed of 12 km per hour.

So, time taken by the long tail boat to travel 60 km = distance/speed

$$= 60 / 12$$

= 5 hours.



Some Big, Big Numbers!

In the Class IV Math-Magic you heard of the number which is equal to a hundred thousand. You had read that there are about one lakh brick kilns in our country where bricks are made.

1. What other things have you heard of in lakhs?

Solution:-

(i) Cost of truck

(ii) Cost of bus

(iii) Population in towns, etc.

2. Write the number one thousand. Now, write one hundred thousand. So how many zeroes are there in the number one lakh? Easy, isn't it?

Solution:-

One thousand = 1000

One hundred thousand is also called one lakh = 1,00,000

Then the total number of zeros in one lakh = 5

3. There are about two lakh boats in our country. Half of them are without a motor. What is the number of boats with a motor? Write it.

Solution:-

From the question, it is given that there are about two lakh boats in our country.

Then, half of them are without a motor.

The number of boats with a motor = $2,00,000/2$

= 1,00,000 motors

4. About one-fourth of the boats with a motor are big machine boats. How many thousand machine boats are there? Come on, try to do it without writing it down.

Solution:-

From the question, it is given that about one-fourth of the boats with a motor are big machines.

Number of boats = 1,00,000

$\frac{1}{4} \times 1,00,000 = 25000$

Therefore, the number of machine boats = 25000

5. Where have you heard of a crore? What was the number used for?

Solution:-

I heard that in a country, the population is a crore.

1 crore = 1,00,00,000

The total number of zeros is 7.

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1) At what price per kg did Fazila sell the kingfish?



Solution:-

Fazila could hardly carry the big kingfish, and she said that the fish weighed 8 kg. So, she would sell the whole for ₹ 1200.

Then, the price of the kingfish for one kg = $1200/8$

= ₹ 150 per kg

2) Floramma has sold 10 kg prawns today. How much money did she get for that?

Solution:-

Floramma sold prawns for ₹ 150 a kg.

Given, Floramma has sold 10 kg prawns today.

So, the total amount she got = 150×10

= ₹ 1500

3) Gracy sold 6 kg swordfish. Mini has earned as much money as Gracy. How many kg of sardines did Mini sell?

Solution:-

Given, Gracy sold 6 kg swordfish.

Then the price of one kg of swordfish = ₹ 60

Total money earned by Gracy = 6×60

= ₹ 360

Mini sold sardines at ₹ 40 per kg.

Total weight of sardines sold by Mini = $360/40$

= 9 kg

4) Basheer has Rs 100. He spends one-fourth of the money on squid and another three-fourth on prawns.

a. How many kilograms of squid did he buy?

Solution:-

Given, Basheer has ₹ 100.

He spends one-fourth of the money on squid = $\frac{1}{4} \times 100$

= ₹ 25

Karuthamma sold squid for Rs 50 a kg.

Basheer bought = $25/50$ kg

= $\frac{1}{2}$ kg of squid

b. How many kilograms of prawns did he buy?

Solution:-

Given, Basheer has ₹ 100.

He spent another three-fourth on prawns = ₹ 75

Floramma sold prawns for Rs 150 a kg.

Basheer bought = $75/150$

= $\frac{1}{2}$ kg of prawns

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Women's 'Meenkar Bank'

The meeting of the Meenkar Bank has just begun. Fazila is the president. Twenty fisherwomen have made their own bank. Each saves Rs 25 every month and puts it in the bank.

1. How much money does the group collect each month?

Solution:-

There are twenty fisherwomen in the Women's 'Meenkar Bank'.

Each saves ₹ 25 every month.

So, the total money collected in the bank each month = 20×25

= ₹ 500

2. How much money will be collected in ten years?

Solution:-

So, from the above solution, the total money collected in the bank per month = ₹ 500

Then, the total money collected in the bank in one year = 12×500

= ₹ 6000

Now, the total money collected in the bank in 10 years = 6000×10

= ₹ 60000

Practice time

Gracy needs money to buy a net. Jhansi and her sister want to buy a log boat. So they take a loan from their bank. They will return it with interest.

a) Gracy took a loan of Rs 4000 to buy a net. She paid back Rs 345 every month for one year. How much money did she pay back to the Bank?

Solution:-

From the question, it is given that

Gracy took a loan of ₹ 4000 to buy a net.

She paid back ₹ 345 every month for one year.

Then,

The total money she paid in one year to the bank = 12×345

= ₹ 4,140

b) Jhansi and her sister took a loan of Rs 21,000 to buy a log boat. They paid back a total of Rs 23,520 in one year. How much did they pay back every month?

Solution:-

From the question, it is given that

Jhansi and her sister took a loan of Rs 21,000 to buy a log boat.

They paid back a total of ₹ 23,520 in one year.

Then,

The total amount they pay back every month = ₹ $23,520/12$

= ₹ 1,960

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Why Don't We Start a New Fish-drying Factory?

The women of Meenkar Bank also want to start a factory to dry fish. The Panchayat has given them some land for that. Over the years, they have saved Rs 74,000. They find out how much they will need for the factory.

1. Fazila writes the things they need to buy to begin. See the table for the cost of each item and the number of items they want to buy. Find the total cost.

Item	Price of each	Number of items	Cost (in ₹)
Bore well for freshwater	₹ 3000	1	
Bamboo rack for fish drying	₹ 2000	20	
Cement tank	₹ 1000	4	

Tray and knife	₹ 300	20	
Bucket	₹ 75	20	

Total cost to set up the factory = _____

When fresh fish is dried, it becomes its weight. In one month, they plan to dry 6000 kg of fresh fish.

How much dried fish will they get in a month? _____

Solution:-

Item	Price of each	Number of items	Cost (in ₹)
Bore well for freshwater	₹ 3000	1	$1 \times 3000 = 3000$
Bamboo rack for fish drying	₹ 2000	20	$20 \times 2000 = 40000$
Cement tank	₹ 1000	4	$4 \times 1000 = 4000$
Tray and knife	₹ 300	20	$20 \times 300 = 6000$
Bucket	₹ 75	20	$20 \times 75 = 1500$

Total cost to set up the factory

$$= 3000 + 40000 + 4000 + 6000 + 1500$$

$$= ₹ 54500$$

In one month, they plan to dry 6000 kg of fresh fish = $\frac{1}{3} \times 6000$

$$= 2000 \text{ kg}$$

2. Floramma – let us first calculate for 6 kg of fresh fish.

We buy fresh fish for ₹ 15 per kg.

We sell dried fish for ₹ 70 per kg.

(i) We dry 6 kg fresh fish to get _____ kg dried fish

Solution:-

We dry 6 kg fresh fish to get 2 kg dried fish.

(ii) For 6 kg fresh fish, we have to pay $6 \times \underline{\hspace{1cm}} = ₹ 90$

Solution:-

For 6 kg fresh fish, we have to pay $6 \times 15 = ₹ 90$

(iii) We will sell 2 kg dried fish and get $2 \times \underline{\hspace{1cm}} = ₹ \underline{\hspace{1cm}}$

Solution:-

We will sell 2 kg dried fish and get $2 \times 70 = ₹ 140$

(iv) So if we dry 6 kg fresh fish, we will earn $\underline{\hspace{1cm}} - 90 = ₹ \underline{\hspace{1cm}}$

Solution:-

So if we dry 6 kg fresh fish, we will earn $140 - 90 = ₹ 50$

(v) But if we dry 6000 kg, we can earn $₹ \underline{\hspace{1cm}} \times 1000$ in one month!

Solution:-

But if we dry 6000 kg, we can earn $₹ 50 \times 1000 = ₹ 50000$ in one month.

3. Jhansi — I found that for 6000 kg fish, we would need 1500 kg salt every month! Its price is Rs ₹ per kg.

Monthly costs:

a) Salt $1500 \times 2 = ₹ \underline{\hspace{1cm}}$

b) Packing and bus charges = Rs 3000

So the total monthly cost of drying and selling the fish = ₹ _____

Fazila — That sounds very good! Our calculations tell us that every month our Bank will earn Rs 44,000!

Solution:-

(a) Salt $1500 \times 2 = ₹ 3000$

Then,

The total monthly cost of drying and selling the fish = $₹ 3000 + 3000$

= ₹ 6000

Hence, earning = $50000 - 6000$

= ₹ 44000

